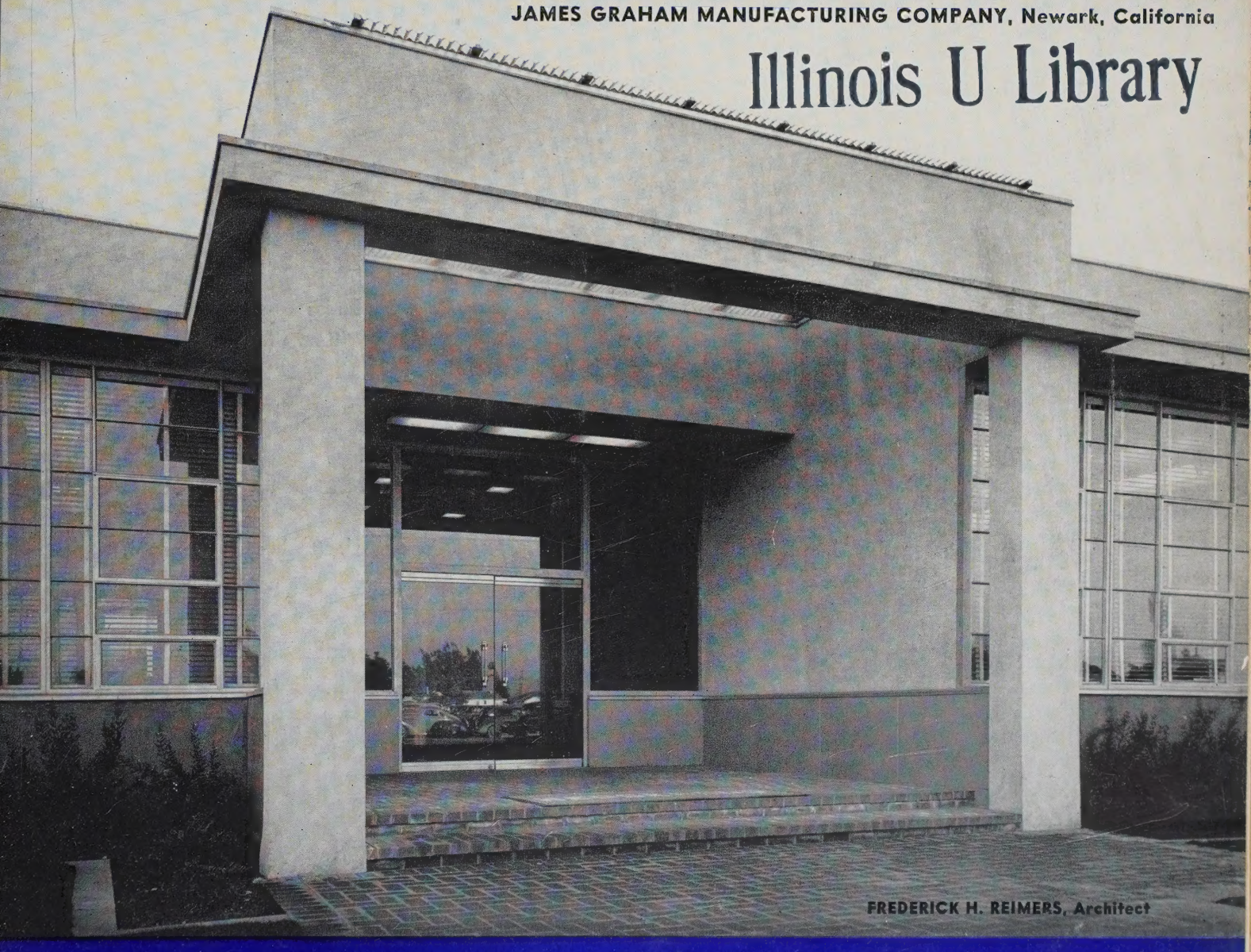
ARCHITECT AND ENGINEER

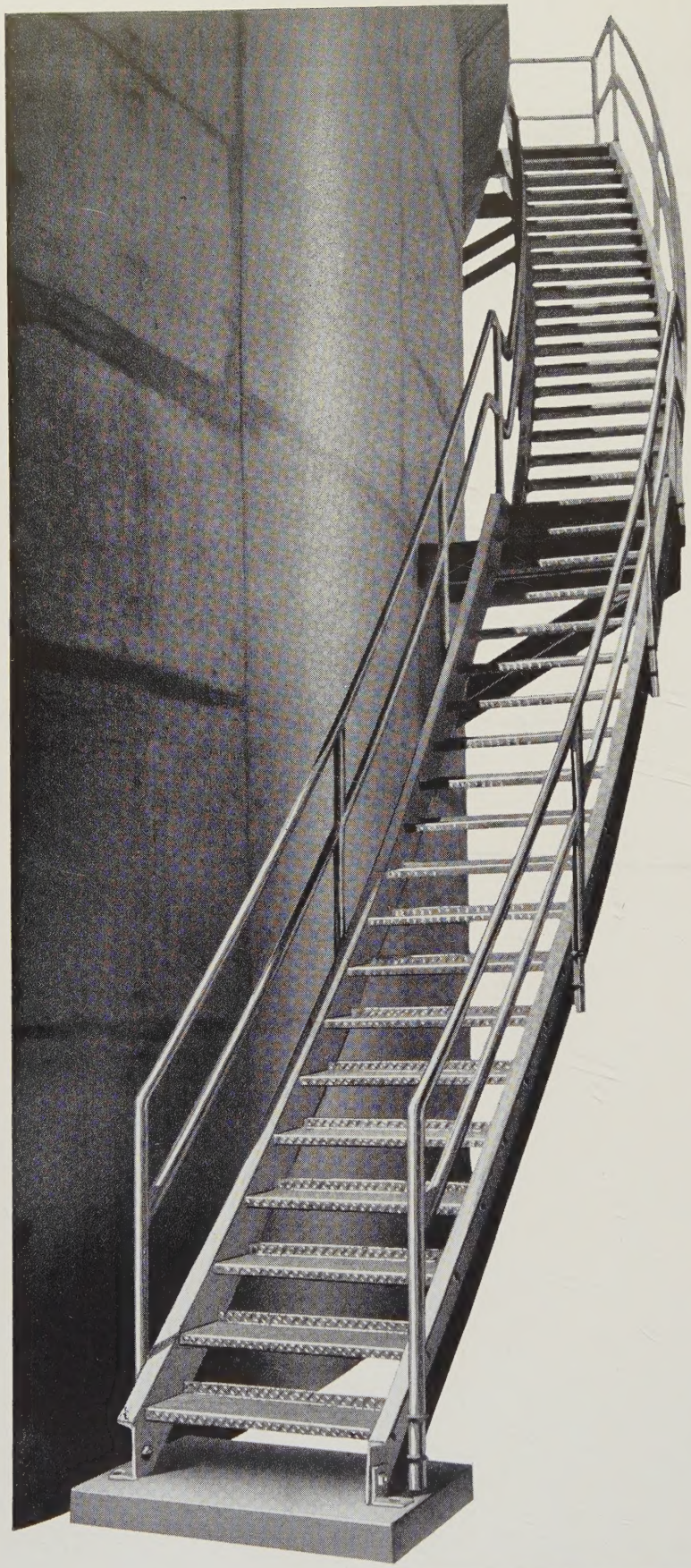
JAMES GRAHAM MANUFACTURING COMPANY, Newark, California

Illinois U Library



FREDERICK H. REIMERS, Architect

JULY 1948



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ARCHITECT AND ENGINEER

Vol. 174 No. 1

ARCHITECTS' REPORTS—Published Daily

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★

COVER PICTURE:

New Office Building of the Graham Manufacturing Company, Newark, California, designed by Architect Frederick H. Reimers, and built by Williams-Burrows, Incorporated.

For details see page 24

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EDITORIAL NOTES

Nearly 20,000,000 tons of raw steel has been lost as a result of major strikes since the beginning of 1946—nearly the total amount of steel supplied to the automobile industry in both 1946 and 1947. It's no wonder new automobiles are scarce and high priced.

* * *

THERE may be some unpublished reason which justifies the State of California in going to New York City to employ an engineer capable of informing the State Department of Public Works how and where the State of California should locate and build a second Bay crossing, however, we fail to detect even the slightest need for such action.

Nowhere in the world will you find a more centralized headquarters for top-notch engineering talent than on the Pacific Coast where many of the world's major engineering projects are conceived and developed for localized execution.

With such an array of internationally recognized engineering talent on the West Coast readily available to assist the State of California with its second Bay crossing problems, there must be some factor other than engineering ability which causes the State Department of Public Works to seek engineering services in New York.

Perhaps to the well known quotation, "All is fair in love and war", there should be an amendment to include "and politics".

* * *

APPRENTICES in the building trades show a steady increase according to a recent survey, and those who are prone to wonder what will happen to the Construction Industry in the future should take cognizance of the fact that the ranks of the men who build the nation's commercial, industrial, and residential structures are increasing at this time.

The fact that the latest figures show some 128,200 apprentices are in training, which incidently is an increase from the 115,100 in training at the first of the year, is indicative of two very important factors.

First, it shows that the building trades have something specific and permanent to offer in the way of satisfactory employment for those who are seeking a sound means of meeting economic conditions and earning a livelihood which embodies a certain amount of security over a longer period of time.

Second, this substantial increase in apprentices in the building trades shows the results of an effort of capital and labor to solve a situation within the industry which was fast becoming a detriment to the building trades and to the construction industry.

Continued cooperation among all interests to recognize and meet the vigorous demand for building labor will certainly accrue to the lasting benefit of everyone concerned in the construction industry . . . builders, who provide employment; labor unions, who provide manpower; and government, which provides capital.

* * *

Property is the fruit of labor; property is desirable; it is a positive good in the world. That some men should be rich shows that others may become rich, and hence is just encouragement to industry and enterprise.—Abraham Lincoln.

* * *

WELDING INSPECTION for structural work of school buildings throughout California will be placed under an economical and adequate procedure by the Architectural Division of the State Department of Public Work, if the recommendations of a special committee of the Structural Engineers Association of Northern California are accepted.

Inspection of structural welds for schools, with particular reference to the Gamma Ray and Magna-Flux methods as proposed by the State Division of Architecture, was recently considered by the Research Committee of the Structural Engineers Association with the conclusion being reached that:

"All welds called for on design plans and/or specifications shall be inspected, unless such inspection is waived on the plans and approved by the State. (2) Welders shall be periodically certified by the State. (3) Inspectors shall be periodically certified by the State. (4) All welds which are defective shall be replaced or corrected. (5) With the assurance of competent welding and inspection as specified above, full reliance should be placed on adequate visual inspection of welds, rather than on Gamma Ray or Magna-Flux methods of inspection, which are impractical and controversial in many cases for structural welds."

ATTENTION: Inadvertently credit for the drawings of the CHINATOWN RE-DEVELOPMENT feature appearing in the JUNE 1948 issue of ARCHITECT & ENGINEER was omitted. Mr. Steven Lee prepared the Chinatown Re-Development drawings toward his degree for Master in Archtiecture, and the design for the Waverly Place remodeling in Chinatown should be credited to Mr. Conneau. We are sorry that the students participating in the project were not recognized in the original publication.

NEWS AND COMMENT ON ART

CITY OF PARIS

A Group Show of Watercolors, Gouache, and Oil on paper by French and American artists from the Binet Gallery in New York, will be shown in the Rotunda Gallery from July 14 to August 7. At the same time there will be a Gouache display by Frances Baldwin of San Francisco.

The Art in Action Shop will feature Pictures of the Month by Matthew Barnes; and for your summer wardrobe, handwoven Guatemalan textiles in Original costumes designed by Syd Springer. Also demonstrations on the Weav-Rite Loom, July 1 to 31.

M. H. DE YOUNG MEMORIAL MUSEUM

Opening of the 1948 La Tausca Art Exhibition on June 25 afforded an opportunity to become more aware of industry's participation in the field of art. The exhibition comprises the paintings of 62 contemporary artists and is a comprehensive cross-section of the trends of art in America today.

An Award Jury consisting of the nationally known artists Alexander Brook, Louis Bouche, Ben Shahn, Bradley W. Tomlin and Vaclav Vytlacil awarded first prize to Nicholas Vasilieff; Second prize to Stuart Davis; Third prize to Charles Howard; Fourth prize to Everett Spruce, and Fifth prize to Yasuo Kuniyoshi.

A panel of eight artists and three museum directors formed the Invitation Jury. They were: Guy Pene du Bois, Adolf Dehn, Robert Gwathmey, Karl Knaths, Yasuo Kuniyoshi, Loren McIver, Waldo Peirce, Everett Spruce and Donald J. Bear of the Santa Barbara Museum of Art, Daniel Defenbacher of the Walker Art Center in Minneapolis, and Mrs. Juliana Force of the Whitney Museum of American Art in New York.

The exhibition is being shown at prominent museums in a nationwide tour during 1948.

ANNUAL PACIFIC NORTHWEST ART AND CRAFTS EXHIBIT

The Second Annual Pacific Northwest Arts and Crafts Show will be held in Bellevue, Washington, on August 4 to 8, 1948, according to an announcement by Carl S. Pefley, President of the Fair.

Last year more than 30,000 persons visited the Show which was held for two days only, and it is expected the attendance will be much greater this year.

Exhibitions will be national in scope with many prominent artists showing.

LANDSCAPE IN COLORS

By Tung Mun Mein

A well-known landscapist of the Ming Dynasty (1368 A.D.). Size of scroll is 9 feet 6 inches by 2 feet 5 inches.

From the Masterpieces of Chinese Paintings, The Collection of Chan Peng Yin, F.R.S.A. (London) now at the De Young Memorial Museum, San Francisco.

MR. CHAMPION NIXON

At Work on the Potter's Wheel.

Student Work in the Background.

Photographs by Frederic Sweger

A NEW APPROACH TO AN OLD PROBLEM

By PATRICIA P. COLEMAN

Beauty and bread—two of the most meaningful words in the dictionaries of the world. Beauty—the feeder of man's moral or aesthethic sense, his eye, ear and intellect. Bread—the sustainer of the physical needs of man. Dynamic and packed with consequence, beauty and bread represent two basic needs of man. Progress and peace hinge on the equality of these widely diverse poles of his existence, one as necessary to his happiness as the other.

Modern educators recognize the need of interlocking the business of earning a livelihood and the dominant need for beauty in the life of every person. The old biblical adage that man does not live by bread alone has been given practical application in city sponsored educational programs. The emphasis is on courses affording the pleasure of creation and a sense of accomplishment. Ceramics easily leads the field in popularity.

Regular Monthly Exhibitions of Student's Work Shows the Remarkable Progress Obtained in the Development of Creative Thinking and Work in Ceramics.

A GROUP OF STUDENTS

Typifying the many who attend ceramics classes at night after the day's business of earning a livelihood.

All have one thing in common — they find relaxation and personal satisfaction in the creation of beauty by their own hands and out of their own imagination.

MR. CHAMPION NIXON

Demonstrating one of the techniques in glazing.

San Francisco boasts an unusual school of this type. Under the tutelage of Champion Nixon, day and night classes are conducted at the Nixon Craft Studios in 551 Davis Street. This address to old time San Franciscans meant Sanguinett's, the famed night spot of the 20's, which offered relaxation and color to many after dreary hours spent at work.

Although the setting has changed the same atmosphere of lighthearted gayety remains inside the ceramic school of today. The classes are informal and pleasant. A friendly community feeling prevades the studio and is conducive to the creation of distinctive work. This is part of a design for a new approach to teaching by the instructor, Champion Nixon, and it is to him that credit is due. His unique method of instruction has resulted in the creation of distinguished objects of beauty and capacity filled classes.

One of the finest potters in America, Champion Nixon is an outstanding artist. Aside from this he is an example of that rare person—the born teacher. He is not an average man. There are no halfway measures for him. He believes in quality as only the true artist can. Filled with boundless energy his personality radiates enthusiasm and reflects the keen enjoyment he finds in his work. Mr. Nixon likes and understands people. Perhaps this accounts in part for his successful career as a teacher.

Freedom and originality are the keys to his different maneuver in teaching. He does not simply lay textbook rules before his students. Everyone learns by doing. In this approach example is the by-word, imitation is eliminated and his students are free to create at will. As the days pass his pupils absorb more and more from this notable technique. It is not long before the student finds within himself some of the magic of creation which marks the difference between art and the ordinary.

A student of the University of Southern California, Champion Nixon has been in the professional realm practically all his life winning acclaim as an artist as well as a teacher. For five years he worked as student and assistant to Dr. Glen Lu-

(See Page 40)

Student Work

From the Division of Landscape Design University of California, Berkeley

The work shown on the following pages is a collaborative effort by students in Architecture and Landscape Architecture working on a major site planning problem. Landscape Design 116 is a course offered each year during the spring semester to a limited group of students in Architecture and Landscape Architecture of high Junior or Senior standing. It is under the direction of Robert Royston, Landscape Architect, and Nicholas Cirino, Architect and Engineer.

The students are divided into groups, which are usually composed of 2 students in Architecture and 2 students in Landscape Architecture. The entire semester is spent in space organization for a specific site.

Step I An actual site is chosen for development, and examined thoroughly by the student group.

Step II Each group writes its own program for the site, and, as technical advisers, begin to develop that program.

Step III A basic contour model of the terrain is made by each group.

Step IV Preliminary site layouts are developed by each student. Final site plans are developed by each group after analysis of the individual studies. This phase covers the determination of relationships between buildings, utilities, roads and walks, recreation facilities, planting, and open space, at a scale of 1″—100′.

Step V Areas of intensified treatment (i. e., shopping centers, schools, and multiple dwelling units) are studied again by each student, and then developed by each group at a larger scale, 1″—40′.

Step VI Each student progresses then to the problems of individual sites (i. e., the house and lot) and carries his analysis through in detail.

Step VII The model is completely developed as projected by the plans.

Step VIII Each group develops a written analysis of its solution to the problem.

Step IX Complete sets of Preliminary Drawings, Model, Program, and Report are submitted for judgment.

Step X Final criticism and judgment is held. Each group presents its solution verbally to the jury.

This year the jury was composed of:
John Funk—Architect.
Edward Williams—Landscape Architect.
Howard Moise—Architect.
Nicholas Cirino—Engineer.
Robert Royston—Landscape Architect.

The project shown on these pages represents the work of G. E. Kostritsky and E. L. Jacobs, students in Architecture; H. E. Troller and S. T. Kaneko, students in Landscape Architecture. The following explanation of the problem, and its solution, is an excerpt from the Report which accompanied the drawings, photos, and model.

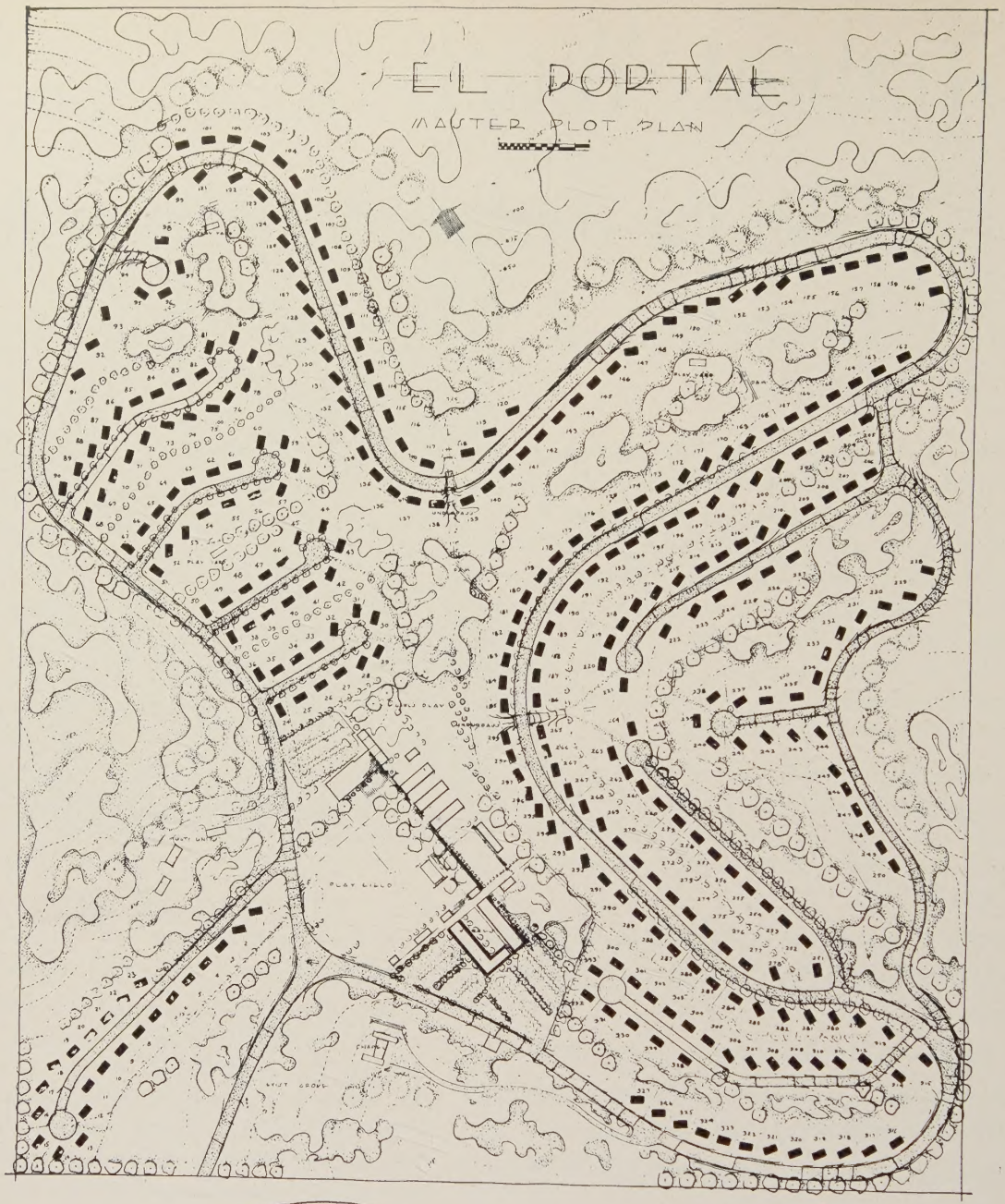
The Problem

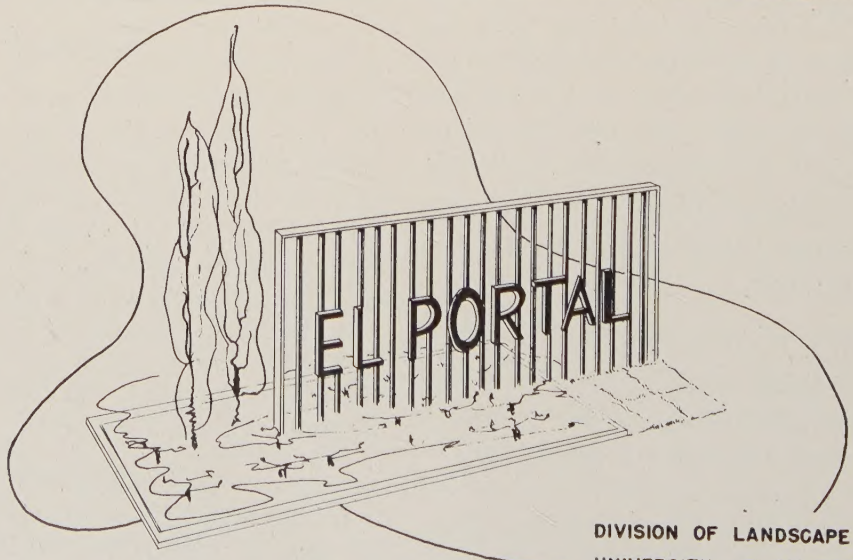
Approximately 270 acres of undeveloped grazing land, with eroded valleys and steep slopes, and located about 20 minutes from the city, was selected as the site for a theoretical community development. Some few basic decisions were made concerning the community, i. e., approximately 400 families, people of a middle income group. It was felt that the efforts of the designers should be directed toward provision of the greatest possible convenience, comfort and safety for the residents of the community.

Solution to the Problem and Schedule of Study

A base model of the topography was made. The slopes, the valleys and flat lands were studied. All areas with 20% or less gradient were marked

See Designs on following four pages

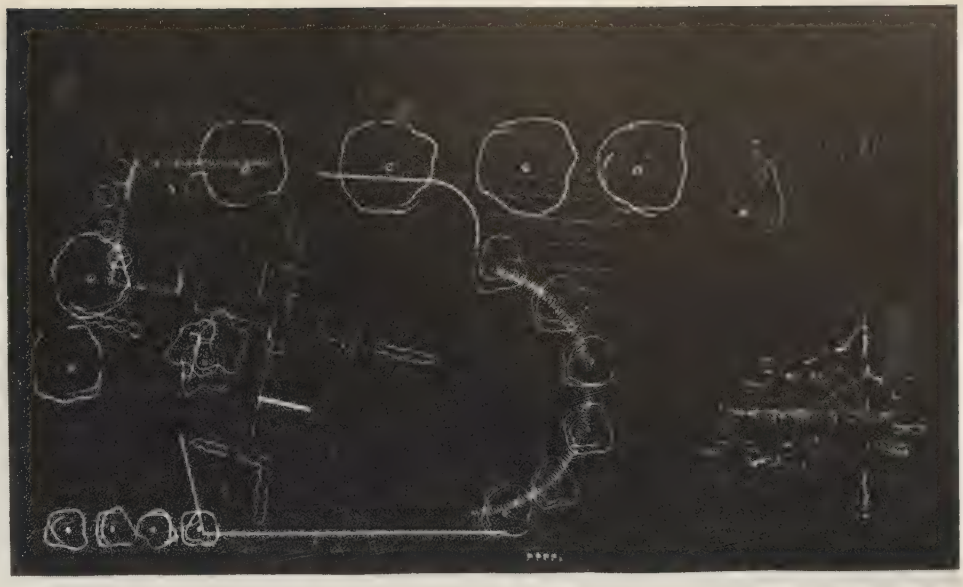




DIVISION OF LANDSCAPE DESIGN
UNIVERSITY OF CALIFORNIA
BERKELEY

ENTRANCE SIGN

ROAD PATTERN



SINGLE UNIT DEVELOPMENT LOT 74

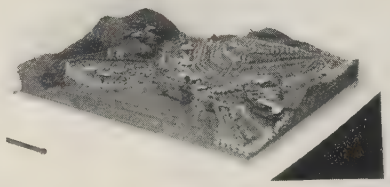
DESIGNING STAFF

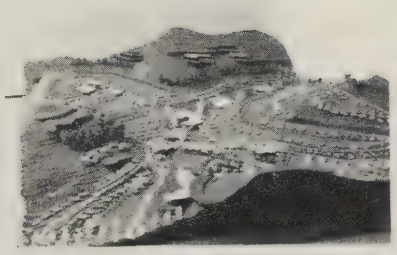
HE TROLLER

GE KOSTRITSKY

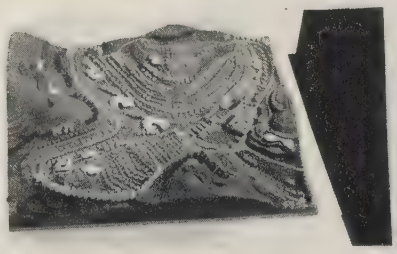
ST KANEKO

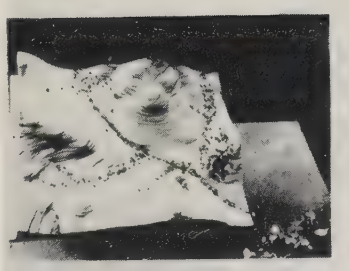
EL JACOBS



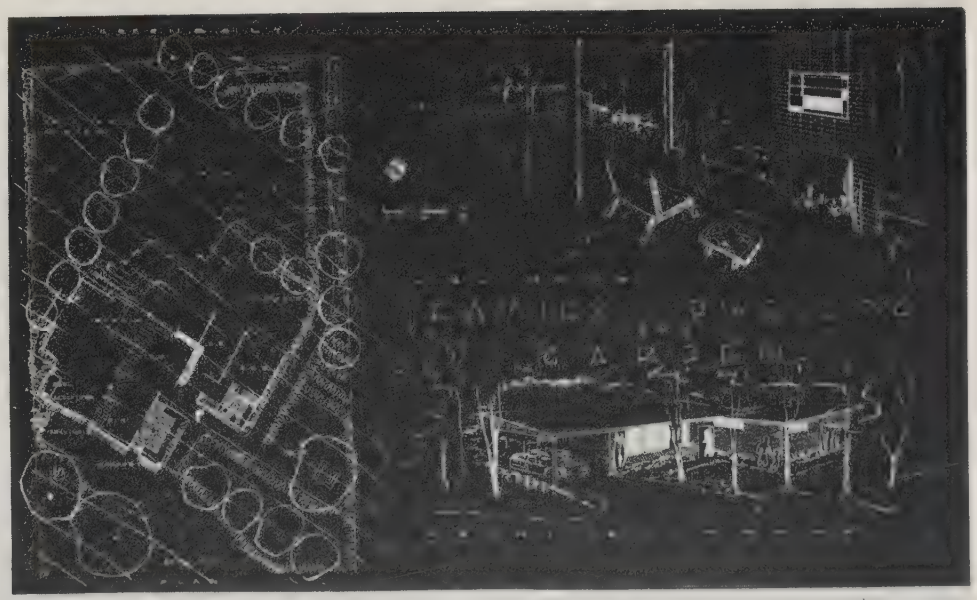


BUILDING PATTERN

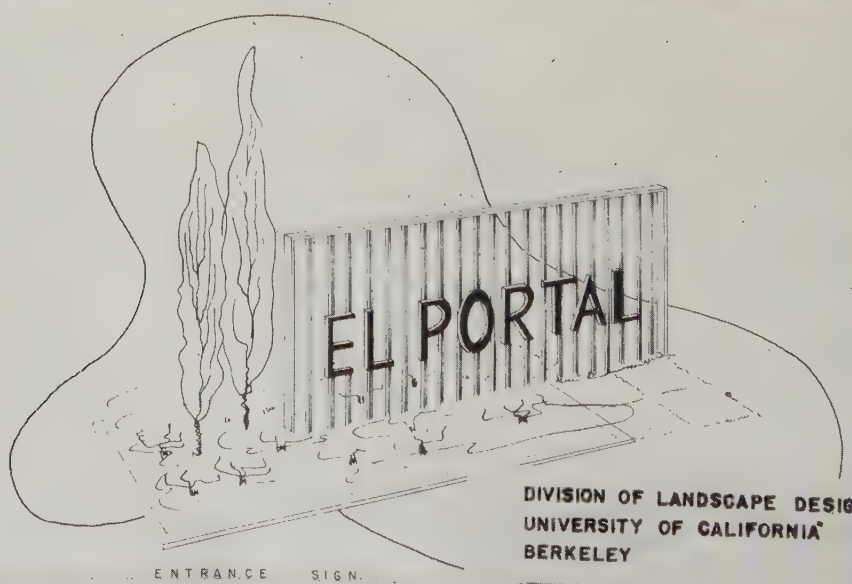




EXISTING LAND

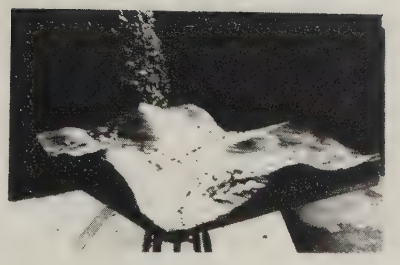


LOT 295



DIVISION OF LANDSCAPE DESIGN
UNIVERSITY OF CALIFORNIA
BERKELEY

ENTRANCE SIGN.



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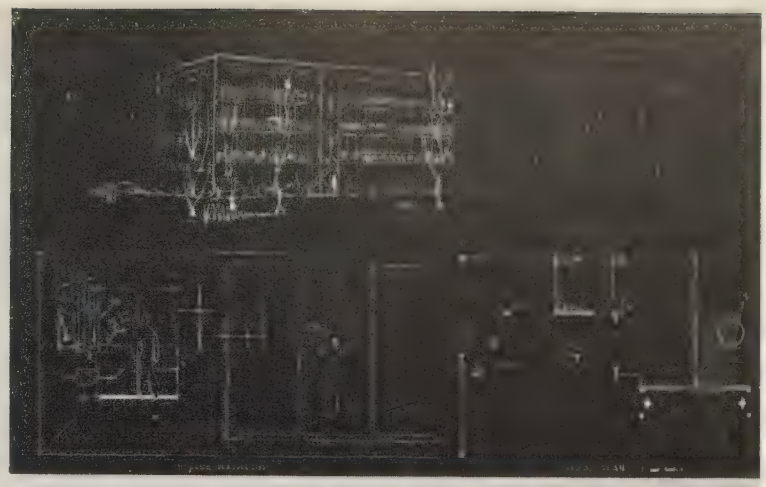
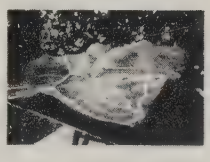


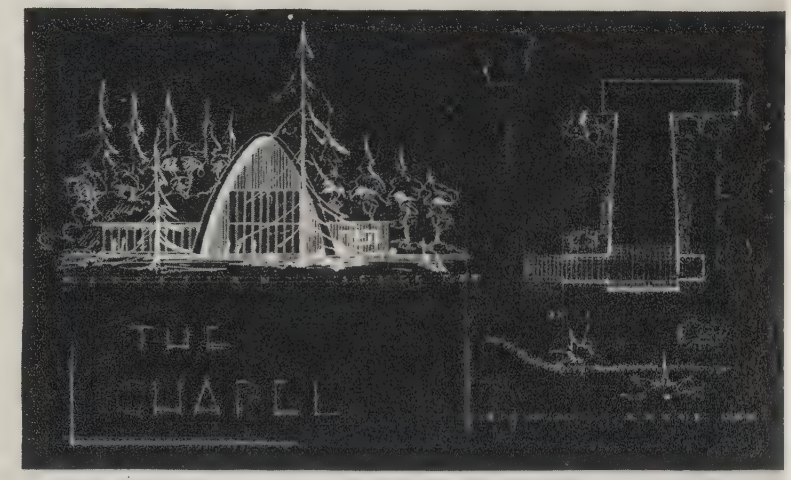
MULTIPLE UNIT HOUSING

DESIGNING STAFF L.T.O.R.

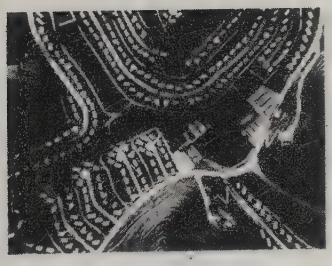
KANEKO L. ARCH.
JACOBS ARCH.
TROLLER L. ARCH.
KOSTRITSKY ARCH.



ROAD PATTERN



NON-SECTARIAN CHAPEL



BUILDING PATTERN

BUILDING PATTERN

PERSPECTIVE OF COMMUNITY CENTER

(See Page 44)

Painting for Disinfection of Rooms and Buildings

The Germ and Mildew Destroying Effects of Paint

By DR. W. SCHWEISHEIMER

Dr. Henry A. Gardner, director of the Scientific Section of the National Paint, Varnish and Lacquer Association, Washington, D. C., has made comparative tests on a laboratory wall surface in order to find out the germ-destroying power of paint. One coat of paint was applied in those tests to a small area of the wall. After drying, this surface as well as the adjoining area of the unpainted surface were lightly rubbed with swabs moistened in sterile water. These were planted in agar sugar, an excellent medium for the growth of germs.

The following results were obtained in the experiments:

Unpainted area—positive growth in agar; painted area—negative growth in agar. This means that the painted part of the wall contained no germs which could grow on the agar solution, while the unpainted part contained such germs (bacteria).

New paints have been invented to destroy germs and mildew. They are of importance in industry as well. Protective coatings are necessary to prolong the life of ferrous metal ducts. Film deposits from new protective coatings are said to be resistant to aging and oxidation, chemical fumes, and solvent vapors. New paints, containing metallic copper, have been developed by research chemists. They protect a ship's bottom from barnacle infestation and eliminate the necessity of frequent dry docking to remove barnacles and other marine-growth. New paints have proved effective in preventing barnacle infestation in fouling water for as long as two years. This is about four times the service life of ship-hull paints meeting ordinary specifications.

Anti-Fouling Paint

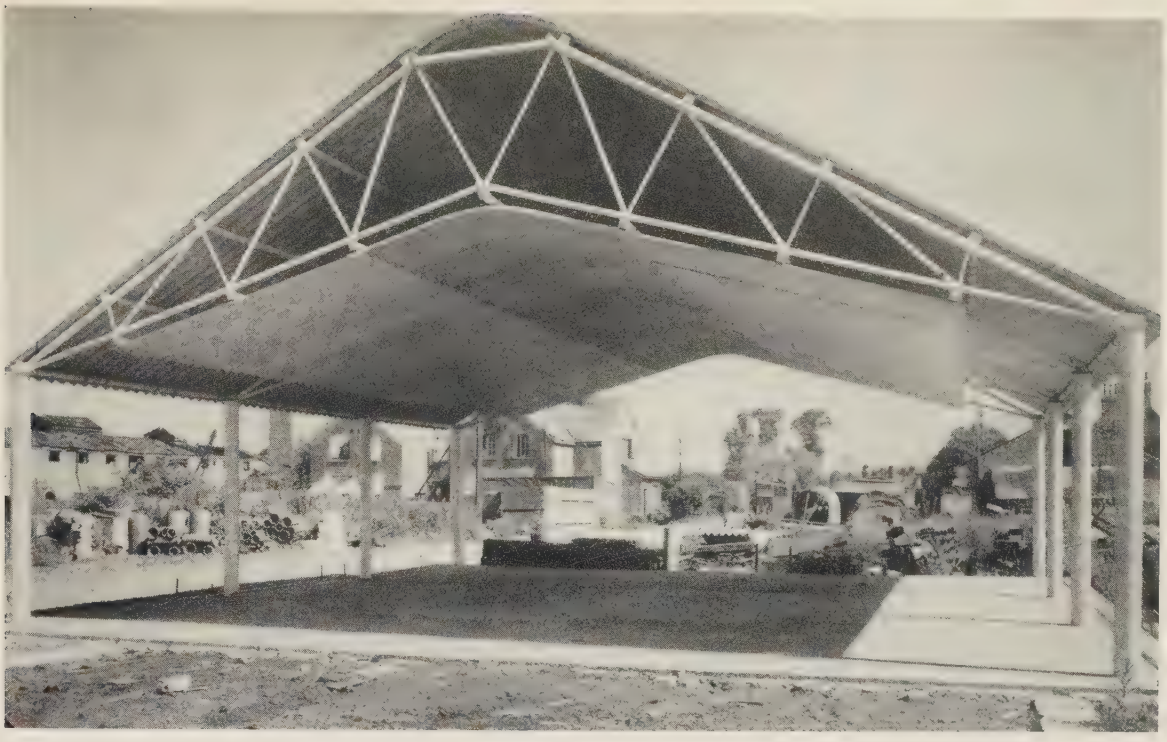
Such developments, we learn from "Chemical Industries", is expected to reduce the operation and the maintenance costs of ships frequenting waters in which bad infestation with marine life normally occurs. So severe is the fouling in many waters that it is not unusual for an unprotected ship to carry one hundred tons of marine organisms on its hull. Within six months from the time a ship is cleaned and painted in dry dock, barnacle infestation often increases the ship's fuel consumption as much as fifty per cent. Antifouling paints, therefore are of high importance for conservation and efficiency of boats.

Proper painting of rooms and buildings is a highly protective measure against infection of any kind. Some decades ago, when medicine just had started understanding the science of bacteria; much was thought of thorough disinfection of every part of a sick room by chemical means after the patient had recovered. Liquid chemicals as well as disinfectant vapors were used to destroy the pathological germs connected with the disease which undoubtedly had remained in the room. Today we are no longer as anxious about this particular kind of disinfection.

What we want and demand, however, are newly painted or freshly papered rooms when a man with an infectious disease had been sick or had died within their walls. This is a comparatively simple procedure and it lessens remarkably the danger of transmission of germs to other people, as experience has shown. Painting by itself usually destroys most of the germs which are not too resistant against such influences. There are, in addition, quite a few sorts of paint which contain certain substances toxic for bacteria and which, consequently, may be considered actual disinfectants. Compounds of copper and mercury are sometimes added to paints in order to have such germ-destroying or anti-fouling action.

Most important is the use of disinfecting paints

(See Page 34)



TROPICAL ROOF— AFRICA DEVELOPMENT

A new light-weight, easily transported and easily erected type of roof has been designed and produced by some of the British firms who make a specialty of manufacturing temporary prefabricated houses.

Construction comprises a steel frame supported on steel columns, with considerable air space between ceiling of building and roof which allows for ventilation and circulation of air for cooling purposes.

The roof will be used in the British colonial development of Africa wherein it is proposed to expend some fifty million pounds in a project to grow ground nuts on three and a quarter million acres of land in East and Central Africa.

CALIFORNIA MANUFACTURERS ESTABLISH NEW DEPARTMENTS

A special department of the California Manufacturers Association, under the direction of George C. Kinsman, has been established to consider problems of fuel, power and water.

Objectives of the new department will be to secure adequate fuel and power supplies at reasonable rates through study of statewide conditions.

NEW GRAMMAR SCHOOL

A contract has been awarded to the S. C. Giles & Company of Stockton for the construction of a 6-classroom, cafeteria, playroom and office Grammar School building in Stockton at a cost of $549,842.

Victor Galbraith is the Architect; Ernest D. Francis the Structural Engineer, and A. A. Coddington of San Francisco, the Mechanical Engineer.

CLAY PRODUCTS PLANT

A contract has been awarded to Larsen & Larsen, San Francisco, for the construction of a $200,000 clay products plant at Warm Springs (Alameda County).

GLASS CONTAINER FACTORY

Larsen & Larsen have been awarded a $500,000 contract for the construction of a glass container plant at Hayward, California.

Photo by

Dean Stone

and

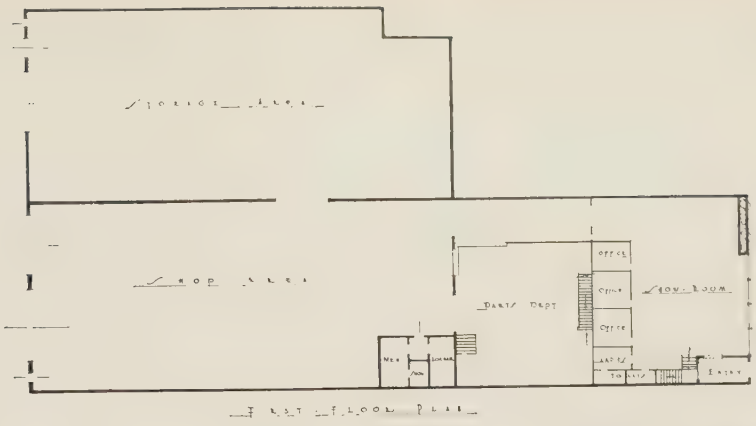
Hugo Steccati

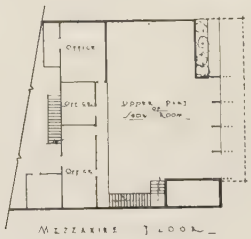
TRUCK SALES AND SERVICE

SAN FRANCISCO, CALIFORNIA

Among the recently constructed buildings on the West Coast which presents the newer lines in architectural design and at the same time meets the needs for a firm engaged in a very competitive business is the Diamond T Truck Sales and Service in San Francisco, California.

The problem of the architect was to design a building for general sales and service of new and used trucks and at the same time provide for a wide variety of activities connected with the distribution of truck parts, storage of new equipment and parts, a complete repair department, new





ARCHITECT:

Irvin Wm. Goldstine, A.I.A.

Bruce E. Heiser, Consultant

truck display space, and executive and sales offices—all in one building.

Use of a spacious display front and mezzanine floor combined new truck display and sales offices. The windows are rain free and the glass has been set at an angle which eliminates glare and street light reflection, but at the same time permits a maximum of natural lighting in the showroom and offices.

Arrangement of the shop, parts department, and storage has been designed to fit the lot requirement of 136 feet deep and 65 feet wide. An alley at the rear of the building has been utilized for entrance into and exit from the building.

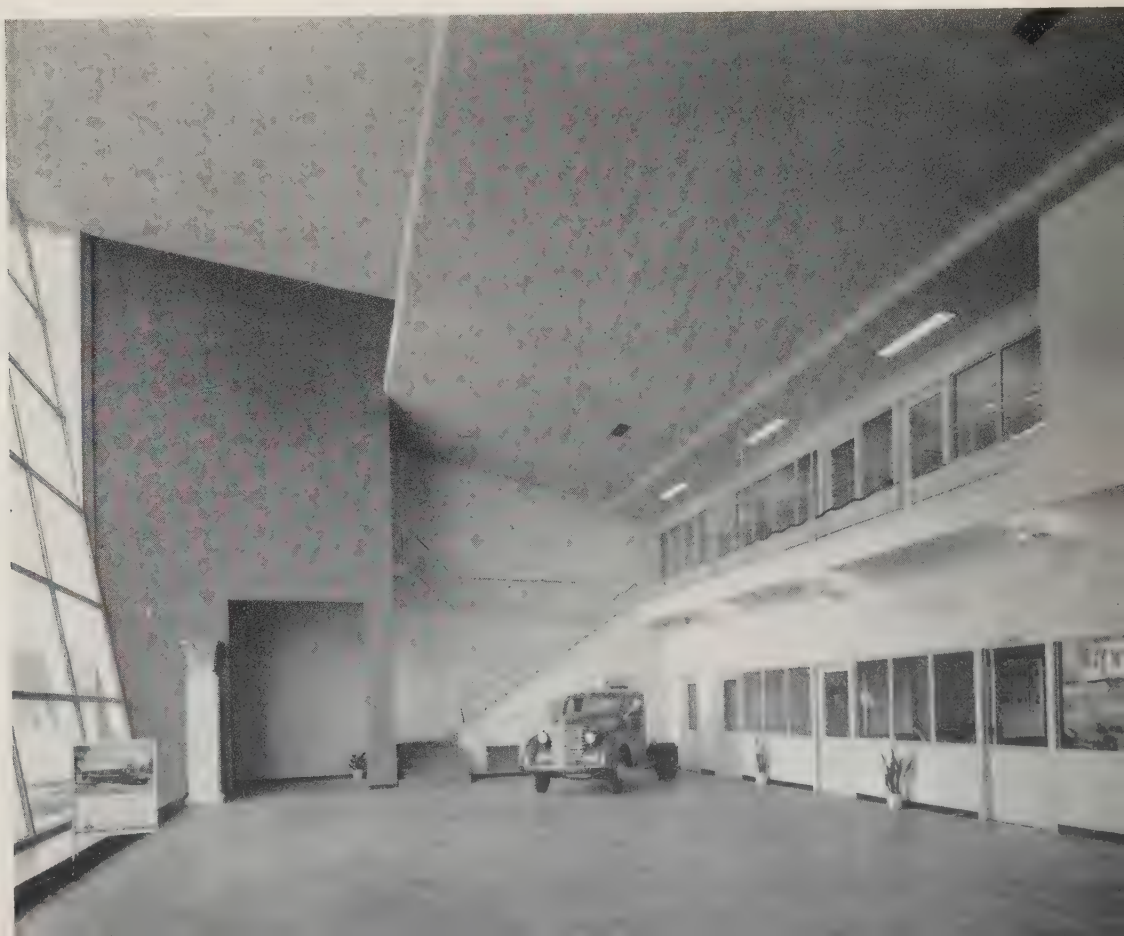


Photo by
Chas. M. Hiller
and
B. V. Washburn

Architect: Frederick H. Reimers **Builder: Williams-Burrows, Inc.**

Office Building

James Graham Manufacturing Co. Newark, California

By EUGENE BURNS

The James Graham Manufacturing Co., pioneer stove maker of the Pacific coast and builder of the famed Wedgewood gas kitchen stove, has recently completed one of the west's most modern office buildings.

Architect Frederick H. Reimers, who designed the modern office building, combined the general business offices with the management of the factory personnel and the executive departments.

The office building, which cost approximately two hundred thousand dollars, is part of a post-war three quarter million dollar construction program which was supervised by Frank Stuart of Williams & Burrows, Inc., building contractors.

The new structure provides these office requirements: A main entrance lobby with information

desk and telephone switchboard; a large business office with a file room, vault and office for the manager; a purchasing manager's office; a sales department with sales office, display room, and an advertising department; a personnel manager's office for the six hundred and fifty employees, and a paymaster's office; and a conference room and executive offices including those of President Clarence Graham, son of the founder.

Since its inception in 1882, the James Graham Manufacturing Co. has dominated the town of Newark, California, which is located near the Dumbarton bridge approach on the east side of San Francisco Bay. When the new building was dedicated recently school let out for the afternoon so that all the children could attend the grand opening and get extra servings of ice cream.

"The James Graham Manufacturing Co. had its beginnings when U. S. Senator James G. Fair, who owned most of the surrounding land, started his narrow-gauge railway which ran from Santa Cruz to Newark," said Vice President Harry W. Jackson, who has been with the organization since 1893. "In those days,"he recalled, "everyone coming to San Francisco from the south, rode the train from Santa Cruz to its northern terminus, Newark, and then ferried on the old 'Newark' from Dumbarton Point to San Francisco. James Graham, the founder, made all of the railway's foundry work."

For many decades, the James Graham Manufacturing Co. made pot-bellied cast iron stoves—many of which are still in use and even today, occasionally, the company is called upon to make a replacement for such companies as the Canadian National Railway (formerly the Canadian Pacific Railway).

"Mr. Graham, a Canadian by birth, always liked fine china so when he introduced the first gas kitchen range to the American market, he named it 'Wedgewood' in honor of the justly famous British line of china—only he added an 'e' to the Wedgwood name," said Mr. Jackson.

Architect Reimers used a light steel frame for the 180′ by 80′ building. Steel pipe columns support

the long span and open web steel joists, permitting movable non-load bearing partitions built of wood studs and metal lath and plaster.

Windows are steel casements, installed in continuous batteries allowing for maximum incidental light, with approximately 50 per cent of these sash operative for ventilation. Floors and walls are of reinforced concrete, the exterior face of the exposed concrete is stucco. The interior faces are furred and metal lath and plaster covered. The roof is a composition built-up roof over two-inch wooden planks.

The automatically-controlled heating system is a modified air conditioning system, circulating heated air from the fan and furnace room in the basement to all spaces in the building, with the returned air being taken back to the furnace by means of concrete duct lines below the concrete floor slab. Temperature requirements can be adjusted to individual spaces.

Structural glazed wall tile units are used in all lavatory rooms as partitions, with ceramic tile used over the concrete floor slabs. All of the other interior partitions are of wood studs and plaster, with the surfaces painted in pleasing and eye-restful colors. The executive offices are covered with Flexwood wall covering in matched panels of hardwood. Ceilings throughout have Acoustic-Celotex perforated tiles applied over the wood furring. The roof is insulated with two thickness Celotex boards with the composition roofing applied over.

All artificial lighting for the main spaces are fluorescent tube fixtures set to the ceilings in batteries forming strips of light and producing good distribution of the light as well as providing the proper amount of light for the individual and the work to be done in the space.

The concrete floors or work areas and corridors are covered with Asphaltic tile. All doors, trim, moulds, and other exposed woodwork is of plain oak.

ENGINEERING PRINCIPLES

IN HOUSE DESIGN

The critical needs of the building industry have focused attention on methods for saving material. In this connection, the strength of houses should be given careful scrutiny, not because houses need be stronger—for few fail—but to judge how much material is superfluous. In carrying out an extensive research program on building materials and structures, the National Bureau of Standards has developed and applied an engineering approach to house design which promises substantial aid to the building industry. This approach, accomplished through application of accepted engineering principles, facilitates the use of unconventional materials and unusual methods of construction.

Strength of houses in the past has been made adequate by patterning them after those which have withstood the test of service conditions. Architects and builders of small structures have followed closely the traditional methods handed down from craftsmen of medieval England. From these traditions, cities have crystallized building codes that are now enforced under the police power of the community.

Except in rare instances, houses have been strong enough to withstand the loads imposed in service. When weaknesses have become apparent, they were more often attributable to defects in relatively small portions of the house than to a general insufficiency of materials. However, available service records do not provide accurate criteria for judging how much excessive material is being used in the construction of houses.

Building material is costly as is the labor required to shape and fit it into place. Application of engineering principles to the design of houses presents a complete and logical method for determining allowable loads for walls, floors, and roofs and makes it practicable to develop house constructions that have sufficient strength yet require the least amount of material and labor. This is the procedure that is followed in the construction of great bridges and other spectacular structures. Intensities of the service loads are first estimated; each material is then selected to serve a specific function and so distributed as to provide structures of adequate strength at minimum cost. The vast fund of technical information on materials can be utilized similarly for the benefit of dwelling houses when applicable engineering principles and design practices are developed and used.

Suggested methods for designing small houses to have adequate strength without waste of material are described and illustrated in considerable detail in a recent Building Materials and Structures Report of the National Bureau of Standards. Because this is a pioneering attempt to apply engineering principles in the design of houses, further studies will no doubt be needed before universally acceptable methods are developed.

Subjecting complete houses to known loads is very expensive and requires time; therefore, Bureau engineers followed the procedure of applying loads to specimens which accurately reproduced the most important structural parts of a house. These parts, such as walls, floors, partitions and roof, have been designated as "elements." For each element, the prescribed methods of loading in the laboratory simulated the actual loads under service conditions. Results of measurements on the structural elements of a house are especially useful to architects and engineers, and approximate closely the results which would be obtained by testing a complete, full-sized house. It is possible, by this method of test, to determine the structural properties of a new construction without waiting for a performance test over a period of years.

In actual service, house walls are subjected to vertical compressive loads by the dead weight of the walls, floors, and roof above; and by live loads such as wind, weight of snow on the roof, and furniture or persons on the floor. Horizontal transverse (bending) loads caused by the wind act upon the outside faces of such walls and some-

times upon the inside faces.

Walls may also be required to withstand concentrated loads, that is, large forces over a small area such as a ladder placed against either face. Impact loads may be applied accidentally to a wall, for example, by a truck backing against the outside or by a person or bookcase falling against the inside face of the wall. Concentrated and impact loads, to a considerable extent, are unavoidable under service conditions. Racking (shearing) loads are applied to a wall by intersecting walls against which a wind is blowing. This effect is simulated in the laboratory by forces at diagonally opposite corners of the wall.

The same kinds of forces act on load-bearing partitions as on outside walls, but their magnitudes may differ. Nonload-bearing partitions are not designed for compressive or racking loads, which under service conditions, are negligible and may therefore be ignored. However, impact and concentrated loads, through accident, are sometimes applied to nonload-bearing partitions.

Floors are subjected to transverse, concentrated, and impact loads. Transverse loads result from the weight of furniture and persons; concentrated loads occur under the legs of heavy furniture; and impact loads are caused by objects falling or persons jumping on the floor.

Roofs must withstand transverse and concentrated loads. The former type is caused by wind and the weight of snow or workmen; the latter by the weight of material and tools during construction or repair of the roof.

Fundamental data on the wind, snow, and occupancy loads that are likely to be imposed have therefore been obtained, and convenient computational methods developed by the National Bureau of Standards for estimating the manner in which these service loads are distributed to the different structural elements of houses. That is, for each element of a house, compressive, transverse, and racking loads were computed by recognized principles of engineering mechanics for typical one- and two-story frame houses in several locations representative of extreme wind and snow loads in the United States. Allowable loads (those considered safe) for 100 wall, partition, floor, and roof constructions were then compared with assumed actual loads for the two types of houses in three locations. The comparison shows that some had insufficient strength while others were much stronger than necessary.

This engineering approach to strength of houses will, it is believed, open the way for designers to introduce unconventional materials and unusual methods of fabrication through laboratory tests to determine whether the construction possess adequate strength. Such data will greatly shorten the time required to develop and obtain acceptance of new types of construction for houses. At the same time, a substantial saving of materials as well as improved protection against storm damage should result.

NEW BUILDING FUNDS FOR UNIVERSITY OF CALIFORNIA

State funds totaling $12,243,500 have been added to the University of California's postwar building program to bring the sum thus far provided by the State for this purpose to over $107,000,000.

The new funds include $9,677,000 appropriated by the 1948 Legislature for seven projects.

The Legislative action which added to the University's record breaking building fund, embracing over 70 projects on all eight campuses, included appropriation of $2,000,000 for the establishment of general education programs on both the Davis and Riverside campuses.

Other construction includes "home management houses" to be used as home economics "Laboratories" on the Berkeley and Los Angeles campuses; a virus laboratory at Berkeley to be directed by Dr. Wendell M. Stanley, Nobel Prize winning biochemist who will leave the Rockefeller Institute for Medical Research at Princeton, New Jersey, to join the University of California faculty this summer; a sewage disposal plant at Davis; Medical School expansion and Law School expansion, both at Los Angeles, and a site for the development and capital improvements at Santa Barbara.

Incorporated in the University's current budget are funds for a Cancer Research Genetics Laboratory; development of additional space in the Engineering Testing Laboratory for use by the Institute of Transportation and Traffic Engineering at the Berkeley campus.

STORAGE WAREHOUSE

A general contract has been awarded to Cahill Bros., San Francisco, for the construction of a storage warehouse in San Francisco for the Bekins Van & Storage Company. W. Adrian is the Engineer. Cost $279,793.

SUPER MARKET

Daley Bros., Belmont, California, have been awarded a contract for the construction of a super market building for Lucky Stores, Inc., in Modesto, California, at a cost of $250,000. Frank Constable, Architect.

GARDENS IN FUTURE CHINATOWN

By ALBERT WILSON, Botanist
Garden Authority, National Broadcasting Co.

San Francisco is hemmed in by water and in the middle of San Francisco the Chinese are hemmed by custom until they are gasping for room and for breath. In this day when tuberculosis is a rapidly retreating plague it is still rampant in Chinatown. Chinatown behind those picturesque facades of Grant Ave. lie in semidarkness, the most crowded slum in the United States.

In the June 1948 issue of Architect and Engineer students of the University of California, School of Architecture have presented a proposed redevelopment of Chinatown. They have included eleven ilustrations which show the plan for this development. And they have supported their plan with a statement of the emergency. "It houses 20,000 people in an area of 20 blocks of houses.— Chinatown is— a slum unfit for human habitation. Photographs record the narrow dark alleys with their corollary of sunless, windowless rooms and the dreary rows of outmoded wooden, yardless houses. On the maps of the San Francisco real property survey of 1939 Chinatown stands out as the blackest part of the city in every respect of bad housing. Here population density, overcrowding, lack of sanitary facilities, percentage of converted structures and of structures of substandard status are highest. Here also the percentage of owner occupancy is lowest."

The authors also present briefly their plan which proposes to do away with this slum. I quote it: "The Plan: an eight block area in which there are few buildings of permanent value are bounded by Broadway, Powell, Clay and Taylor streets, has been selected as the most suitable for redevelopment. All existing structures would be taken down and utilities adjusted to three new diagonal streets so related to the grades as to minimize site development costs. The development comprises (1) a central area containing two and three story buildings with walled gardens and integral garages. (2) Eight skyscraper type apartment buildings to increase population density and provide view apartments. (3) Perimeter structures containing row houses and apartments. (4) Two nursery school buildings, and two play areas. (5) Minimum neighborhood shoping facilities located at the northeast and southeast corner of the development; and additional garages."

In forthright language these men of the University present the problem which is "to replace this (viciously) decayed housing with livable modern housing planned for convenience and amenity for sun, air, outlook, outdoor living, space, gardens, trees and safe play areas. This result they propose must be achieved without destroying the picturesque asets of the existing Chinatown shopping area."

It is clear this is a serious problem of slum living and slum clearance. In the first place let us remember for generations the Chinese of San Francisco have had no other place where they could go to live. When they tried to spread out they came face to face with deed covenants which instantly turned them back, and the effect is a ghetto with some concentration camp overtones. This sounds disagreeable and in order that we may be moved to do something about it we must face the fact that it is disagreeable.

But while were looking for responsibility let us and our Chinese fellow citizens not forget that they too have responsibility in this matter. By some unfortunate combination of circumstances the Chinese of California when they have escaped from the ghetto and were able to build as they pleased have not and do not establish homes which from the California point of view are attractive. In fact they have a genius for putting up temporary shacks and then making them permanent. They pay little attention to landscaping and in fact they are inclined to carry a piece of slum with them wherever they go, and plant them in the new place. Now this is wrong. And it is one of the

reasons for the restricted deed covenants, and it is unnecessary for let me say I know a half dozen of the loveliest places to live down the Peninsula built and owned and cared for with exquisite taste by Chinese families.

Now what business is all of this of ours; what has it to do with good gardens. It has everything to do with it, for in this redevelopment of Chinatown which in one form or another is imperative and inevitable gardens will play a big part. And these gardens must be not **wrong** but **right,** they must be **good gardens.** They can be superlative gardens. The Chinese have a genius for gardens in the old country. There abilities in fact are very high, and although they haven't used this genius of theirs in this country other than for truck gardens and for the culture of flowers for the market, yet they have native capacities for accomplishing marvels in the gardens around their own houses and apartments. Even with the desperately restricted opportunities in Chinatown you can find here and there sprouts of this gardening genius breaking through. I took a special trip over there the other day to refresh my memory on this subject. I looked into a store window, it wasn't crowded with things for sale each with big price marks, no this one had one object sitting in the very middle all by itself. I stopped to study it, and saw a shallow dish made with square corners and rounded smooth edges and covered with a restful shade of blue glaze. In it was a composition, a garden upon which much care and attention had been exerted.

You got the effect of a reflecting pool laying quietly at the base of a rugged deeply marked slate and gray and green rock. If in your mind you saw it far away is became a majestic mountain. Sprouting from a cleft low down was a clump of broad leaved primrose heavy with yellow flowers and buds. Along side was a grassy sedge with flower parts brown and tuffy gracefully arching against the rock, and a bug with two fragile tines of antennae sitting on some of the blades. The bottom of the dish was filled with clear water through which could be seen pebbles exactly like those in a clear mountain lake. A second low rock with more low plants close by including some green moss built out like a little sloping meadow with a tiny frog sitting to one side occupied another section of the dish which completed the composition. It engaged my attention for some time and while I was studying it, measuring its accurate proportions, its simplicity and good taste, among the rattle of footsteps one palpably slowed down and quit altogether. Then a deep musical rumble over my shoulder announced "Well my friend you'd think you were looking down into a lake of the Sierras."

And moving on I passed a hotel, there sitting in a beautiful teakwood stand was a big glazed pot filled with a vigorously growing plant known as ophiopogon. The leaves stood up like blades, dull green ending in a point like that of a paring knife. The whole pot was filled with this plant, it had just finished flowering, purple beadlike fruit had formed and these were held above the leaves in clusters. That whole window by the side of the entrance door was given over to this plant, no curtain cheated it of light or sun, and it had evidently never been allowed to lack for water nor suffer under the attack of enemies. But is was the glazed pot that engaged by attention. The thought here had evidently come from some beloved garden, for all around the outside were beautiful chrysanthemums, the buds of some closed, of others wide open above the leaves spread out and lifelike.

Going further on into Chinatown I glanced up and saw a firescape with a narrow landing opposite a long window which in reality was a door. Sitting tight in one corner was a tub painted green in which was growing a bamboo, the golden yellow bamboo whose leaves rustled gently in the cool breeze. Looking down at the next level of the same firescape I saw a large glazed pot in which a shiny leaved healthy looking camellia was growing. There were no other plants, these two

(See Page 39)

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Central Valley of California:
Herbert E. Goodpastor, President; Frank V. Mayo, Secretary, 307 Exhcange Building, Stockton 2, California.

Colorado Chapter:
Raymond H. Ervin, President; James M. Hunter, Secretary, 2049 Broadway, Boulder, Colorado.

East Bay Chapter:
A. Lewis Koue, President; James H. Anderson, Vice-President; Loy Chamberlain, Secretary; Chester H. Treichel, Treasurer. Office, 3833 Piedmont Ave., Berkeley, California.

Montana Chapter:
Ralph H. Cushing, President; H. C. Cheever, Secretary, Montana State College, Bozeman, Montana.

Northern California Chapter:
Wm. Clement Ambrose, President; Lester W. Hurd, Vice-President; Ralph N. Pollack, Secretary; Donald Beach Kirby, Treasurer: Office 369 Pine Street, San Francisco.

Oregon Chapter:
Frank Roehr, President; Sidney W. Little, Vice-President; J. Holman Baines, Secretary; Don Edmundson, Treasurer. Office 619 Builders Exchange Bldg., Portland 4, Oregon.

San Diego Chapter:
H. Louis Bodmer, President; Louis J. Gill, Secretary, 203 Granger Building, San Diego, California.

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Spokane Chapter (Washington):
Noel E. Thomson, President; Kenneth D. Storment, Secretary, Hutton Building, Spokane, Washington.

Utah Chapter:
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Washington State Chapter:
Clifton J. Brady, President; Arrigo M. Young, Vice-President; John Richards, 2nd Vice-President; Ralf E. Decker, Sec,; Waldo B. Christenson, Treasurer. Office 1411 Fourth Avenue Building, Seattle 1, Washington.

Tacoma Society:
Chas. Rueger, President; Clarence Rueger, Vice-President; W. W. Durham, Secretary-Treasurer.

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Kenneth W. Roehrig, President; James Morrison, Secretary, 334 Federal Bldg., Honolulu, T. H.

RECEIVES A.I.A. GOLD MEDAL AWARD

Charles D. Maginnis, A.I.A. Architect of Boston, Massachusetts, who is nationally famous for his works in ecclesiastical architecture, was awarded the Gold Medal Award of The American Institute of Architects at their recent 80th Annual Meeting in Salt Lake City, Utah.

The Medal, which is the highest honor the A.I.A. can confer, was presented to Maginnis by Douglas W. Orr of New Haven, Conn., President of the American Institute of Architecture. The award was made at the annual dinner session.

FIRST JOINT COOPERATIVE CONFERENCE IS SUCCESS

The first meeting of the National Joint Cooperative Committee of The American Institute of Architects and The Associated General Contractors of America was held in Washington, D. C. the latter part of June.

Established in May, committee members agreed that the general purpose of the group will be to provide an avenue through which building construction problems of mutual concern and interest to architects and contractors can be presented. The problems will be studied for possible applications to professional and construction services in the building field.

Consideration will be given any problem submitted by the general contractors, architects, and others in the construction industry, as well as public and private groups and individuals in general.

A.I.A. committee members present at the organization meeting were: James R. Edmunds, Jr., Baltimore, Mr. Edward G. Conrad, Cleveland, Ohio; Harry B. Tour, Knoxville, Tenn., and the A.G.A. members present were: Walter L. Couse, Detroit,

(See Page 37)

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Puget Sound Engineering Council (Washington)

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U. C. ENGINEERS WIN HEATING MEDAL

The 7th International Heat Congress has awarded a medal to two University of California engineers in recognition of the excellence of their paper presented to the Congress in Paris last year.

The two engineers are B. F. Raber and F. W. Hutchinson, professors of mechanical engineering. The medal was awarded to the two engineers by the Directing Committeè of the Congress.

The paper presented was entitled Rational Analysis of Panel Heating and Cooling systems, a subject in which the two University of California engineers are international authorities. The paper described the authors' researches over a period of several years.

Professors Raber and Hutchinson are the authors of two recent books: Refrigeration and Air Conditioning Engineering, and Panel Heating and Cooling Analysis, both published by John Wiley and Sons, Inc.

STUDENTS WIN AWARD IN CIVIL ENGINEERING

Willis L. Chilcote and Charles A. Stengel, students, have been voted the Francis Keally prize in civil engineering by the faculty committee of the Carnegie Institute of Technology, according to Professor Frederic T. Mavis, head of the department.

The prize which is awarded annually for "marked ability in engineering related to building construction" was won by Chilcote and Stengel for their paper on "Structural Tests of a Basket-Handle Frame of Reinforced Concrete."

ILLUMINATING ENGINEERS SOCIETY ELECTS OFFICERS

The Illuminating Engineering Society has elected Lee E. Taylor, Detroit, Michigan, President of the Society for the year starting October 1, 1948.

Other officers elected to serve with Taylor are A. H. Manwaring, Philadelphia, General Secretary; E. M. Strong, Ithaca, New York, Treasurer; Walter Sturrock, Cleveland, Ohio, Vice-President; and Directors Myrtle Fahsbender, Bloomfield, N. J., and Hoyt Steele, Des Plaines, Illinois.

The I.E.S. was founded in 1906 for the study, evaluation and discussion of the numerous phases of the art and science of illumination and the publication of reports and Recommended Practices on illuminating engineering and related subjects. The Society has over 6,500 members and is supported by 40 Sections and Chapters throughout the United States and Canada.

FEDERAL AGENCIES REQUEST COORDINATE BID OPENINGS

Agencies of the federal government have re-

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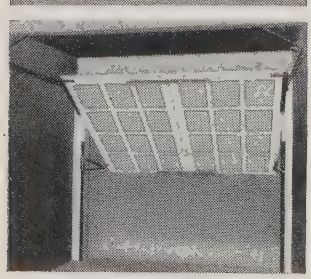

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quested the national Associated General Contractors to issue a system to coordinate bid opening dates on federal projects of $1,000,000 or more.

The national A.G.C. on behalf of its members, has pledged its cooperation to obtain bidding date information regarding large state, municipal, industrial, commercial and other non-federal projects. No attempt will be made to control the dates on such projects but the information will be used to avoid conflict in advertising federal projects.

The federal agencies have endorsed the A.G.C. resolution passed at the Dallas Convention recommending avoiding bid openings on Mondays and days immediately preceding or following holidays. The Corps of Engineers will act as the clearing house for other agencies.

STRUCTURAL ENGINEERS ARE NEEDED

Structural, mechanical, and electrical engineers are needed for California's $250,000,000 State building program for the design of new hospitals, institutions, and office buildings, according to the California State Personnel Board.

Applications will be accepted continuously for Senior Structural Engineers. Other applications are being accepted for examination on July 27 and 29.

RADIO AND ELECTRICAL APPLIANCE ASSOCIATION

The Southern California Radio and Electrical Appliance Association, Inc., will hold its first annual all electrical Exposition in the Pan Pacific Auditorium in Los Angeles on August 20-29.

The event is being sponsored by representatives of radio, television, electric appliance dealers, retailers, manufacturers, and utility companies.

RESIDENCE

Sharps & Brown, Architects of Burlingame, California, have awarded a contract to R. A. White, Contractor, for the construction of a $46,303 residence in Hillsborough.

PAINTING CONTRACT

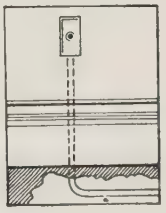
A contract for painting 299 Units of the Parker Homes project near McClellan Field, Sacramento county, has been awerded to Wm. Reid, Sacramento contractor for $41,473, by the Housing Authority of Sacramento county.

SCHOOL BONDS VOTED

Electors of the Davis Elementary School District, Davis, California, recently approved a $240,000 bond issue for the construction of a new 10-room, cafeteria and office grammar school building. Leonard F. Starks, Sacramento, is the Architect.

Thoughtful things like this help make a client happy

Built-in telephone facilities are the mark of a thoughtful, modern builder. For telephone conduit and outlets, installed while the house is under construction, add much to the future value and convenience of the home. Just a few pieces of tubing leading to well-located outlets... that's all it takes. The cost is small. And telephones can be added or moved later on without drilling holes or running wire along baseboards.



For free help in planning modern, built-in telephone conduit, call your local Pacific Telephone office and ask for "Architects and Builders Service."

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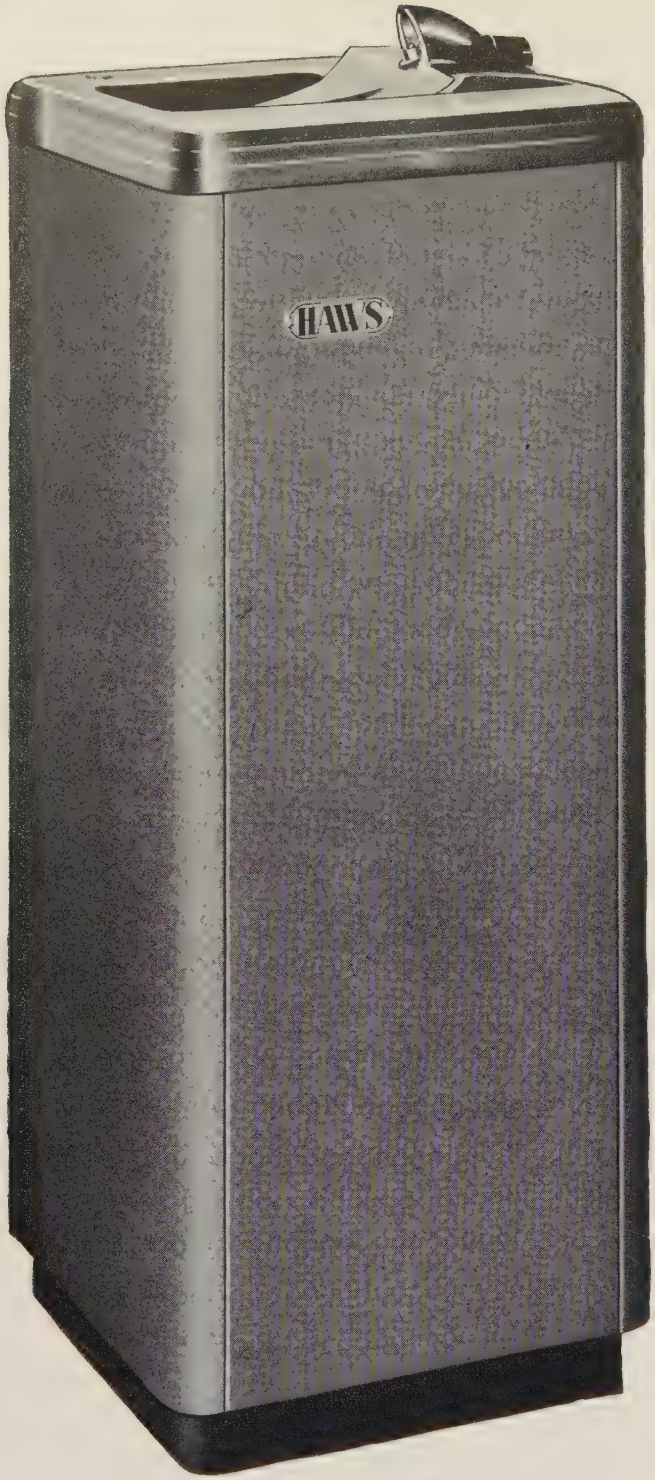

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PAINTING FOR DISINFECTION OF ROOMS AND BUILDINGS

(From Page 20)

in hospitals, hotels and other institutions where rooms are continuously inhabitated by other people. It has been known for a long time that the air of a room may be contaminated through the coughing or sneezing of a patient with tuberculosis of the lungs or the larynx. We call this droplet infection. The finer particles of the sneezed-out or coughed-out liquid may float in the air of the room for some time.

These liquid particles which carry around tubercle bacilli, settle to the walls or to the ceiling or sink to the floor where they dry out, become powder and dust, and may be found later in the dust which contaminates the air of the room. Whenever such air is inhaled by other people, germs of the respective disease are brought into the body by way of the air-passages.

Paint and Puerperal Fever

It took centuries until men understood the infectious nature of puerperal fever and how to protect mothers against its dangers. Quite a few years ago, Dr Max Starkloff,—who at that time was Health Commissioner of St. Louis, in a remarkable example gave evidence how lives were saved through the application of paints to the walls of sick rooms in hospitals. This occurred in a lying-in hospital of which Dr. Starkloff had knowledge. In a given period there had been more than one hundred cases of puerperal fever, with a high death rate. The walls and ceilings were re-painted. After this had been done, it was noted that in a similar period following, cases of puerperal fever had practically disappeared from the hospital. We do not want to go as far as to consider the repainting of the walls the only reason for this decisive improvement, but undoubtedly it was largely responsible for this saving of the lives of as many mothers.

Droplet infection plays a major part in the transmission of infectious germs in grippe (influenza), whooping cough, infectious cold, sinus trouble etc. It is important also in the transmission of such highly infectious diseases as measles, scarlet fever, pneumonia, diphtheria, tonsillitis. Painting does not come too late for destroying those germs. Some less resistant germs, it is true, retain their infective power only for one hour or less while they remain suspended in the air in form of droplets: the germs of epidemic grippe, influenza etc. Geting dry (desiccation) destroys them. Other germs, however, stay infective for weeks and months; they may be a danger to everyone who stays in the erstwhile sick room.

City Laws Require Redecorating of Rooms

That is the reason why it is so important to live

in newly painted rooms and the reason why in many cities regulations require that new tenants of apartments and houses be protected by redecorating the rooms before they are permitted to move in. You never know who has lived in your room before you,—or may have died in your new room. The former tenant of the room may have had a bad cough, and his cough bacteria or other particles of his disease may have contaminated the walls of the room.

According to British publications it has been established that the insecticide DDT can be successfully incorporated in oil-bound water paints so as to produce a surface which possesses insecticidal properties for some time. It remains to determine how long such surfaces will remain effective since it is economically important to decide whether it will be better to use such special protective paints initially in new houses—or to use them only when there is evidence that infestation with insects is beginning or is likely to begin.

To be afraid of germs—or for that of insects—is of no avail,—as little as are other kinds of exaggeration. What we need, what the painter needs, is knowledge,—the knowledge of the functioning of germs and bacteria and how to be protected against their dangerous effects. Equipped with this knowledge, the painter will be able to do an important job in protecting human beings against hazards which can be prevented.

REPRESENTATIVE APPOINTED

E. J. Benson, special representative for the Chemiseal Company, announces the appointment of the Patten-Blinn Lumber Company, Los Angeles, as distributor of its products in the territory covered by their 22-branch yards throughout southern California.

The Chemiseal Company with main offices in Detroit, Michigan, have a plant at Oakland, California.

DOCTOR'S OFFICE BUILDING

A general contract has been awarded Williams & Burrows, Burlingame, California, for the construction of a Doctor's Office Building in San Mateo, California. Angus McSweeney, San Francisco, is the Architect. Estimated cost $23,000.

BUS DEPOT

Wm. Radthe, Gilroy, California, contractor has been awarded a $27,500 contract for the construction of a new bus depot at Gilroy.

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LA VERNE • WHITTIER • PASADENA • SAN PEDRO

HEADLINE NEWS AND VIEWS

By E. H. W.

"Last year, operating at an average 93% of rated capacity, the steel industry in the United States produced between 53 and 54% of the total world production of steel." Dr. R. E. Zimmerman, Vice president, U. S. Steel Corp.

* * *

Labor organizations in the building industry recently inaugurated important steps to increase productivity by bringing labor practices in closer accord with modern building techniques. Such action was inevitable and essential.

* * *

"Efforts to modernize building codes as a means of reducing construction costs are making better progress than at any time in the past": Melvin H. Baker, Chairman, Construction Industry Information Committee.

* * *

Labor and materials for the construction of a new $14,000 biological laboratory have been given to the University of California at Los Angeles by a donor who prefers to remain anonymous.

* * *

"Favorable public opinion has become almost as important to industry today as good sources of raw materials and efficient manufacturing and marketing methods":—Dr. Claude S. Robinson, President, Opinion Research Corp'n.

* * *

"I seriously question the financial feasibility or desirability of two more (Bay) crossing structures": —G. L. Fox, Manager, San Francisco Chamber of Commerce.

* * *

"Steel occupies the same position in our economy as it does in a building. It is the framework upon which virtually everything else is hung":—Reynolds Knight ("BEHIND THE SCENES IN AMERICAN BUSINESS")

* * *

"West Coast sawmills surmounted obstacles of floods, strikes and vacations to maintain a record lumber production for the first 21 weeks of 1948, exceeding the same period in 1947 by 100-million feet":—H. E. Smith, Secretary West Coast Lumbermen's Ass'n.

* * *

Representatives of the press were recently given a preview of the $35,000.00 Portola Festival House, being erected in San Francisco in conjunction with pending Portola Festival and Pageant. The House is to be given away at a public drawing during the Festival, but, in the meantime the project is open to public inspection.

A. I. A. ACTIVITIES

(From Page 31)

Michigan, co-chairman, and William Muirhead, Durham, North Carolina.

NORTHERN CALIFORNIA CHAPTER, A.I.A.

Among the twenty distinguished architects made Fellows of The American Institute of Architects at the organizations recent 80th Annual meeting in Salt Lake City, Utah, was Gardner A. Dailey, San Francisco.

The architects named Fellows were honored for their notable contributions to the advancement of the profession in original design, education and public service, and in selecting Dailey for this high honor the Institute recognized his devotion of "talents to simple, direct, contemporary architectural solutions. He has produced buildings of integrity, quality and distinction: thereby the architectural profession has been stimulated and its horizons expanded."

Winner of three first prizes in national competitions for domestic architecture, Mr. Dailey designed the U. S. Merchant Marine Cadet Training School in San Mateo, California, and the Brazil Pavilion at the Golden Gate International Exposition in San Francisco. Dailey is also a Visiting Critic in the Yale University Department of Architecture.

SOUTHERN CALIFORNIA CHAPTER, A.I.A.

Members were recently treated to a first hand view of the operation of the Kaiser Co., Inc., Iron and Steel Division plant at Fontana, California. Explanations of the plant construction were outlined by Phillip Daniel who served as chief Assistant Architect to the staff Architect Arthur Mann during the time of the building of the plant.

President George Allison being on a vacation, the meeting was presided over by Al Martin, Jr.

BONDS VOTED

A special election in Arbuckle, California, recently provided some $75,000 for an addition to the Arbuckle Union Elementary School District's grammar school.

SEWAGE TREATMENT PLANT

A general contract has been awarded to Stolte, Inc., San Leandro, for the construction of a $99,774 sewage treatment plant in Marin county (California) for the Marin County Sanitary District, San Anselmo.

The construction will be of reinforced concrete. Harry N. Jenks, Palo Alto, is the Engineer.

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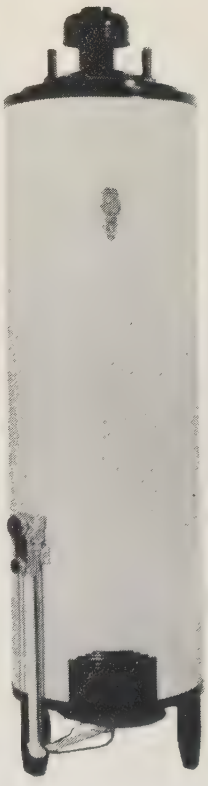

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Number Bathrooms	Number Bedrooms	Storage Cap Gallons
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1	3 or 4	40
2	2 or 3	40
2	4 or 5	50
3	3	50
3 or 4	4 or 5	75 -

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LANDSCAPE ARCHITECTURE

Notes of The Profession

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Vernon Dean, President; Robert Royston, Vice-President; Ned Rucker, Treasurer; E. L. Anderson, Secretary, 1736 Franklin, Oakland, California.

WASHINGTON LANDSCAPE ARCHITECTS ELECT

The Washington Society of Landscape Architects held its third annual election of officers early in June in Seattle and selected the following officers for the ensuing year:

Robert J. Hansen, Seattle, President; Sherman Ingels, Steilacoom, Vice-president, and Arthur McClish, Seattle, Secretary-treasurer.

The Washington Society of Landscape Architects, now in its third year, meets monthly and is composed of thirteen landscape architects living in Washington. The Society recently elected two honorary members: Dr. John Hanley, well known garden authority, and Professor Frederick Cuthbert, of the University of Oregon, Department of Landscape Architecture.

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PLANS FOR IDEAL NEIGHBORHOOD SOUGHT

With an eye to building better communities throughout the country, organized home builders have undertaken an ambitious program to find plans for an ideal neighborhood. This search has taken the form of a nationwide contest sponsored by the Community Development and Shopping Center Committee of the National Association of Home Builders, an Association of over 13,000 private home builders.

Committee Chairman William P. Atkinson, Oklahoma City builder, in revealing details of the national and regional competitions announced that a series of awards will be made for the winning plans, which will be displayed at the National Home Builders Exposition in Chicago, in February, 1949.

Three regional awards and three national awards are being offered in each of five classes with additional honorable mentions. Awards will be made for the best small groups of single family homes under fifty units with emphasis on economy housing, best single family group over fifty units with emphasis on economy housing, best residential community, best garden apartment of multiple group and best suburban shopping center where construction is 25% complete. Judgments will be based on such factors as ingenuity, soundness of design, consumer appeal and construction.

The national awards committee is composed of distinguished leaders in land and community development headed by J. C. Nichols of Kansas City, Missouri. Twenty regional juries will be formed by regional vice-presidents of NAHB with two additional judges appointed by each. Material to be entered for judging includes location maps, development plans showing significant features of projects, brief outline specifications of site improvements, and other necessary planning data.

Atkinson announced that entries must be mailed to the various regional headquarters of NAHB by November 1, 1948.

Home Builders and other interested persons may obtain complete information from any one of the 115 local home builders associations throughout the United States or by writing to the National Association of Home Builders, 1028 Connecticut Avenue, N. W., Washington, D. C.

GARDENS IN CHINATOWN

(From Page 30)

comprised the entire garden of the apartments. But it was something growing, just a tiny reminder of a garden.

And then around a corner in an alley upon the second story of a brick apartment building were window boxes on the narrow sills. In all of these boxes it was clearly a case of anything that would grow. The exposure, the limited hours of sunlight, the constant stiff breeze, and dust blown up from below limited the variety of plant to select. Geraniums, aspidistra that will take anything, narcissus whose bulbs will at least send up foliage, and succulents of various kinds made up most of these window box gardens. In one of the corner windows where more of the afternoon sun reached there were some annuals, low snapdragons and daisies gay in color that light up like a cheerful light that side of the building. In fact, on that stroll that day I saw everywhere little sprigs of green, a plant here a flower there, purely simple attempts at gardening under the most difficult and discouraging conditions.

And just as I was about to leave Chinatown I looked into another shop window and saw hanging on the wall an exquisite picture. It was composed of all the gaily colored insects that could be found in China. Red beetles, brown lady birds, green aphis, long legged green praying mantis, steel blue, golden and shiny black bugs, and brilliantly winged butterflies resting on lacy flowers. I reflected on the whimsical state of the mind which led this Far Eastern artist to select and preserve the terrors of the garden in this lovely way so that they were terrors no longer but a thing of beauty.

We see then the Chinese love gardens, but here in San Francisco they have not developed them. Now that this reconstruction of Chinatown is before us let us encourage the Chinese themselves to bring out their own culture, their own inheritance and develop their own chinese gardens. Let them bring here into their gardens that Chinese quality which the students of art have long classed so high. I know an engineer who has worked in China three separate times. The first time he told them just what he wanted done, he told them to do it his way, and do it exactly as his blue prints said. He got nowhere. The next two times he presented his plans, the Chinese carried them out their way, it was a better job than he ever dreamed of.

I have recently visited a Chinese garden down the peninsula. The owners first took me from the street into the house. Indeed it wasn't a house, it was a home because it was filled with beautiful things that showed restraint and taste. And then

(See Page 43)

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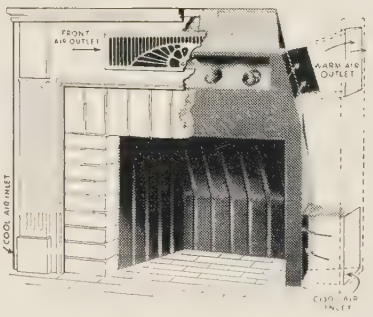
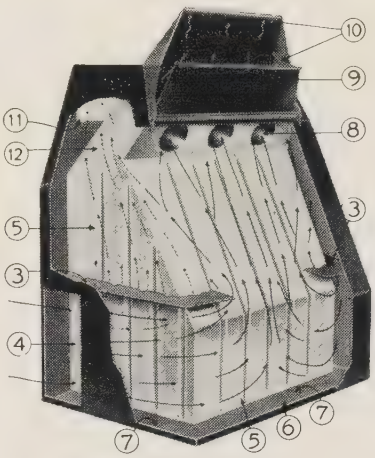


Front view with part of masonry cut away.



Rear and side view — with part of outer metal lining cut away showing the inside lining of firebox. Arrows showing contact and flow of air to and over all heating surfaces.

MORE HEATING SURFACE BECAUSE—

- Heating chambers around the throat as well as the lower firebox.
- Large air passages at each end of throat plus superheating round air flues directly through the throat connecting the lower and upper heating chambers.
- Large cool air inlets and warm air outlets.
- The foregoing results in much larger volume of warm air circulation.

MORE YEARS OF SERVICE BECAUSE—

- Ribbed reinforced boiler-plate firebox controls warpage.
- No exposed metal parts beneath the chimney to rust out.
- Perfect contact of air to all heating surfaces, and unobstructed flow of air removes heat faster and prevents metal from reaching deteriorating temperature.

KEY TO PHOTO AT LEFT:

3. Horizonal baffle plates which direct a large volume of air intake to the lower rear heating chamber and over the hottest of the metal.
4. Large air inlets at floor level.
5. Ribs individually die formed into the boiler plate add strength and neutralize expansion.
6. Location of rear cool air inlet.
7. Bottom view of air heating chambers.
8. Superheating, connecting round air passages through the throat.
9. Heat control damper has underslung poker friction control to regulate draft.
10. Smoke dome.
11. Side air passages from lower to upper heating chamber.
12. Inner lining of the throat.

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A NEW APPROACH TO AN OLD PROBLEM

(From Page 14)

kens, internationally known potter. Three times he circled the Americas spending his time in the study of art and storing ideas for original tactics in teaching. Today these ideas are proving their worth and earning for him a host of followers. His wife, Miriam, is interested in art and often the two pool their experiments in glazing while their two year old son, Forrest watches with rapt attention.

Many rehabilitated veterans will remember Mr. Nixon for his work at Letterman General Hospital. Stationed at Letterman during the waning years of the war after two years service for the Navy, he taught in the Occupational Therapy Shop where ceramic making was prized for its therapeutic value.

A framework for tomorrow's educational program are the methods of this teacher. Conceived as a pattern wherein nothing remains static but is ever-growing the design points the path to creations of beauty. Exciting the imagination this procedure bears watching. The focus falls on the future—and on the man who evolved the plan, Champion Nixon.

SCHOOL BUILDINGS

Among the contracts awarded during the past few weeks for the construction and reconstruction of school buildings were the following:

ANDERSON (Shasta County) Grammar School of 10 classrooms, offices and toilet rooms, $190,169. O. A. Deichmann, Architect, and L. G. Shalz, Contractor; **OAKLAND,** Hamilton Jr. High School Gymnasium, $249,777, John E. Branagh, Contractor; **OAKLAND,** Elmhurst Jr. High School, $229,628, Gymnasium. Swinerton & Walberg, Contractors; **LAFAYETTE,** (Contra Costa County) Acalenes High School addition, 8-rooms and shop building, $273,700. Frank A. Payne & Son, Contractors; **OROVILLE** High School addition, 3-classrooms, domestic science and art room, $122,564. Adams & Chittenden, Contractor; **SAN RAFAEL** High School swimming pool $94,983. Younger & Hallstoon, Inc., Contractor.

Valley Home (Stanislaus County) Grammar School, $70,300. Donald Thompson, Contractor; **EUREKA** High School gymnasium and swimming pool, $715,000. Geo. J. Maurer & Son, Contractor; **SAN JOSE** Bellarmine College Preparatory, $220,000. Roberty McCarthy Co., Contractor.

CHURCH CONTRACT has been awarded the J. A. McNeil Company of Oakland for the construction of a $175,000 new church building in Woodland (California) for the Holy Rosary Parish.

ESTIMATOR'S GUIDE

BUILDING AND CONSTRUCTION MATERIALS

PRICES GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY MATERIAL HOUSES TO SAN FRANCISCO CONTRACTORS. 2½% SALES TAX ON ALL MATERIALS BUT NOT LABOR

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

BONDS—Performance or Performance plus Labor and Material Bond(s), $10 per $1000 on contract price. Labor & Material Bond(s) only, $5.00 per $1000 on contract price.

BRICKWORK—

Common Brick—Per 1M laid—$100.00 up (according to class of work).
Face Brick—Per 1M laid—$200.00 and up (according to class of work).
Brick Steps—$3.00 and up.
Common Brick Veneer on Frame Bldgs.—Approx. $1.20 and up—according to class of work).
Face Brick Veneer on Frame Bldgs.—Approx. $2.00 and up (according to class of work).
Common Brick—$28.50 per M—truckload lots, delivered.
Face Brick—$60.00 to $90.00 per M, truckload lots, delivered.
Cartage—Approx. $9.00 per M.
Los Angeles County Area—Residential, up to 4-family or apt., metal raceways, $6.50 per outlet.

BUILDING PAPER—

1 ply per 1000 ft. roll	$5.30
2 ply per 1000 ft. roll	7.80
3 ply per 1000 ft. roll	9.70
Brownskin, Standard, 500 ft. roll	8.00

BUILDING HARDWARE—

Sash cord com. No. 7	$2.65 per 100 ft.
Sash cord com. No. 8	3.80 per 100 ft.
Sash cord spot No. 7	3.65 per 100 ft.
Sash cord spot No. 8	4.00 per 100 ft.

Sash weights, cast iron, $100.00 ton.

Nails, $5.50 base.

CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown. Carload lots only.

	Bunker per ton	Del'd per ton
Gravel, all sizes	$2.44	$2.75
Top Sand	2.38	3.13
Concrete Mix	2.38	3.06
Crushed Rock, ¼" to ¾"	2.38	2.94
Crushed Rock, ¾" to 1½"	$2.38	$3.13
Roofing Gravel	2.81	3.50
River Sand	2.50	3.06

Sand—

Lapis (Nos. 2 & 4)	3.56	3.94
Olympia (Nos. 1 & 2)	3.56	3.88

Cement—

Common (all brands, paper sacks), carload lots, $3.02 per bbl. f.o.b. car; delivered $3.60.
Cash discount on carload lots, 10c a bbl., 10th Prox., less than carload lots $4.00 per bbl. f.o.b. warehouse or delivered.
Cash discount 2% on L.C.L.

Trinity White, Medusa White — 1 to 100 sacks, $3.13 sack warehouse or del.; $9.56 bbl. carload lots.

DAMPPROOFING and Waterproofing—

Two-coat work, $8.00 per square.
Membrane waterproofing—4 layers of saturated felt, $9.00 per square.
Hot coating work, $5.00 per square.
Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.
Tricocel waterproofing.
(See representative.)

ELECTRIC WIRING—$15 to $20 per outlet for conduit work (including switches).

Knob and tube average $6.00 per outlet. (Available only for priority work.)

ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $8000.00.

EXCAVATION—

Sand, $1.00; clay or shale, $1.50 per yard.
Trucks, $30 to $45 per day.
Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $250 installed on new buildings; $300 on old buildings.

FLOORS—

Composition Floors, such as Magnesite, 50c per square foot.
Linoflor—2 gages—$3.00 per sq. yd.
Mastipave—$1.50 per sq. yd.
Battleship Linoleum—available to Army and Navy only—⅛"—$3.50 sq. yd. 3/16"—$3.50 sq. yd.
Terazzo Floors—$1.50 per sq. ft.
Terazzo Steps—$2.50 per lin. ft.
Mastic Wear Coat—according to type—20c to 35c.

Hardwood Flooring—

Standard Mill grades not available.
Victory Oak— T & G

25/32 x 2¼"	$252.00 per M. plus Cartage
½ x 2"	$210.00
½" x 1½"	200.00

Prefinished Standard & Better Oak Flooring

25/32 x 3¼"	$265.00 per M. plus Cartage
½ x 2½"	237.00 per M. plus Cartage

Maple Flooring

25/32" T & G Clear	$330.00 per M. plus Ctg.
2nd	305.00 per M. plus Ctg.
3rd	255.00 per M. plus Ctg.

Floor Layers' Wage, $2.12½ per hr. (Legal as of July 1, 1947. Given us by Inlaid Floor Co.)

GLASS—

Single Strength Window Glass	$ .40 per □ ft.
Double Strength Window Glass	.60 per □ ft.
Plate Glass, under 75 sq. ft.	1.50 per □ ft.
Polished Wire Plate Glass	2.25 per □ ft.
Rgh. Wire Glass	.60 per □ ft.
Obscure Glass	.40 per □ ft.

Glazing of above is additional.
Glass Blocks—$2.75 per □ ft. set in place

HEATING—

Average, $2.50 to $3.00 per sq. ft. of radiation, according to conditions.
Warm air (gravity) average $64 per register.
Forced air average $91 per register.

INSULATION AND WALLBOARD—

Rockwool Insulation—
(2") ..... $65.00 per M sq. ft.
Cotton Insulation—Full-thickness
(3⅝") ..... $95.50 per M sq. ft.
Aluminum Insulation—Foil-mounted
on both sides ..... $33.50 per M sq. ft.
Tileboard—4'x6' panel ..... $9.00 per panel
Wallboard—½" thickness ..... $55.00 per M sq. ft.
Finished Plank ..... $69.00 per M sq. ft.
Ceiling Tileboard ..... $69.00 per M sq. ft.

IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

LUMBER—

No. 1 Common ..... $90.00 per M
No. 2 Common ..... 88.00 per M
Select O. P. Common ..... 94.00 per M

Flooring—

	Per M Delvd.
V.G.-D.F. B & Btr. 1 x 4 T & G Flooring	$170.00
"C" and better—all	170.00
"D" and better—all	170.00
Rwd. Rustic—"A" grade, medium dry, 8 to 24 ft.	150.00
"B" grade, medium dry	150.00

Plywood ..... 15c to 18c per ft.
Plyscord ..... 9½c per ft.
Plywall ..... 9c per ft.
Plyform ..... 15c per ft.

Shingles (Rwd. not available)—
Red Cedar No. 1—$13.00 per square; No. 2, $10.50; No. 3, $9.00.
Average cost to lay shingles, $6.00 per square.
Cedar Shakes—Tapered: ½" to ¾" x 25"—$17.00 per square.
Resawn: ¾" to 1¼" x 25"—$22.00 per square
Average cost to lay shakes,— 8.00 per square

MILLWORK—Standard.

D. F. $150 per 1000. R. W. Rustic $175 per 1000 (delivered).
Double hung box window frames, average with trim, $12.50 and up, each.
Complete door unit, $15 to $25.
Screen doors, $6.00 to $8.00 each.
Patent screen windows, $1.25 a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $12.00 each.
Dining room cases, $15.00 per lineal foot. Rough and finish about $1.00 per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $65.00 per M.
For smaller work average, $75.00 to $85.00 per 1000.

MARBLE—(See Dealers)

PAINTING—

Two-coat work ..... per yard 75c
Three-coat work ..... per yard $1.00
Cold water painting ..... per yard 25c
Whitewashing ..... per yard 15c
Turpentine ..... $1.85 per gal. in 5-gal. cont.
Raw Linseed
Oil ..... $3.33 per gal. in 5-gal. cont.
Boiled Linseed
Oil ..... $3.23 per gal. in drums.
Boiled Linseed Oil—$3.33 per gal. in 5-gal. containers.
Replacement Oil—$2.75 per gal. in drums. $2.75 per gal. in 5-gal. containers.
Use Replacement
Oil ..... $3.00 per gal. in 1 gal. cont.
A deposit of $7.50 required on all drums.

PATENT CHIMNEYS—

6-inch ..... $2.00 lineal foot
8-inch ..... 2.50 lineal foot
10-inch ..... 3.50 lineal foot
12-inch ..... 4.50 lineal foot

PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $17.60.

PLASTERING (Interior)—

	Yard
3 Coats, metal lath and plaster	$3.00
Keene cement on metal lath	3.50
Ceilings with ¾ hot roll channels metal lath (lathed only)	3.00
Seilings with ¾ hot roll channels metal lath plastered	4.50
Single partition ¾ channel lath 1 side (lath only	3.00
Single partition ¾ channel lath 2 inches thick plastered	8.00
4-inch double partition ¾ channel lath 2 sides (lath only)	5.75
4-inch double partition ¾ channel lath 2 sides plastered	8.75
Thermax single partition; 1" channels; 2¼" overall partition width. Plastered both sides	7.50
Thermax double partition; 1" channels; 4¾" overall partition width. Plastered both sides	11.00
3 Coats over 1" Thermax nailed to one side wood studs or joists	4.50
3 Coats over 1" Thermax suspended to one side wood studs with spring sound isolation clip	5.00

Note—Channel lath controlled by limitation orders.

PLASTERING (Exterior)—

	Yard
2 coats cement finish, brick or concrete wall	$2.50
3 coats cement finish, No. 18 gauge wire mesh	3.50

Lime—$4.00 per bbl. at yard.
Processed LLiLme—$4.15 per bbl. at yard.
Rock or Grip Lath—⅜"—30c per sq. yd.
½"—29c per sq. yd.

Composition Stucco—$4.00 sq. yard (applied).

PLUMBING—

From $150.00 per fixture up, according to grade, quality and runs.

ROOFING—

"Standard" tar and gravel, 4 ply—$11.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $14.00 per sq.
Tile $40.00 to $50.00 per square.
Redwood Shingles, $15.00 per square in place.
5/2 #1-16" Cedar Shingles, 4½"
Exposure ..... $18.25 square
5/8 x 16"—#1 Cedar Shingles, 5"
Exposure ..... $17.00 square
4/2 #1-24" Royal Shingles, 7½"
Exposure ..... $23.00 square
Re-coat with Gravel $5.50 per sq.
Asbestos Shingles $30 to $60 per sq. laid.
½ to ¾ x 25" Resawn Cedar Shakes,
10" Exposure $24.00
¾ to 1¼ x 25" Resawn Cedar Shakes,
10" Exposure $29.00
1 x 25" Resawn Cedar Shakes,
10" Exposure 22.00
Above prices are for shakes in place.

SHEET METAL—

Windows—Metal, $2.50 a sq. ft.
Fire doors (average), including hardware $2.80 per sq. ft.

SKYLIGHTS—(not glazed)

Copper, $1.25 sq. ft. (flat).
Galvanized iron, 65c sq. ft. (flat).
Vented hip skylights 90c sq. ft.

STEEL—STRUCTURAL—

$220 per ton erected, when out of mill.
$270 per ton erected, when out of stock.

STEEL REINFORCING—

$200.00 per ton, in place.

STORE FRONTS (None available).

TILE—

Ceramic Tile Floors—$1.70 per sq. ft.
Cove Base—$1.35 per lin. ft.
Glazed Tile Wainscot—$1.85 per sq. ft.
Asphalt Tile Floor ⅛" x ⅜"—$ .40 per sq. ft. Light shades slightly higher.
Cork Tile—$1.00 per sq. ft.
Mosaic Floors—See dealers.
Lino-Tile—$1.00 per sq. ft.

Wall Tile—

Glazed Terra Cotta Wall Units (single faced) laid in place—approximate prices:

2 x 6 x 12 ..... $1.25 sq. ft.
4 x 6 x 12 ..... 1.50 sq. ft.
2 x 8 x 16 ..... 1.45 sq. ft.
4 x 8 x 16 ..... 1.75 sq. ft.

VENETIAN BLINDS—

75c per square foot and up. Installation extra.

WINDOWS—STEEL—

60c per square foot, $5 for ventilators.

GARDENS IN CHINATOWN

(From Page 39)

they led me to the garden, you could recognize at once that it was definitely in the Chinese style, it was made up of the traditional Chinese components. The moment you entered you felt yourself tranquilized as though you had at that moment come from the roaring city into a remote mountain dell. You kept looking forward down a path, your eye leaping over or swinging around obstacles such as a peony bush, dwarf lemon, a clump of chrysanthemums, finally to a weeping willow and to one side at the Moon-gate at the far end, and the long path curved out of sight.

On the other side of the path far to the left were pads of lilies and that symbol of summer the lotus, and glints of light from the water of the pool from which they stood up. At one side grew a clump of bamboo which for the Chinese stands traditionally for long life. And not far away there was also the very fragrant shrub called "winter sweet", so potent in the cold January. In the garden too was the plum tree with clumps of narcissus at its roots both symbols of winter; a second clump of peonies symbol of spring, and another wide bed of chrysanthemums symbol of fall.

Back toward the house in glazed pots and wooden tubs with stout handles were the oleander, hibiscus or rose of sharon, gardenia, and pomegranite. A season later these would be shifted on and the aspect of the garden would have undergone a change. Another aspect for the sake not so much of novelty as of propriety, for the Chinese garden tolerates no tiresome monotonies.

So Chinatown if it is appropriately redeveloped will have gardens in the Chinese manner. In the designing, the newer radical schools of Chinese art as well as American will have to be used with great discrimination and the main dependent will be the reliable Chinese garden of the past.

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CRAFT	San Francisco	Alameda and Contra Costa	Marin	Vallejo	San Mateo	San Jose	Stockton	Sacramento	Fresno
ASBESTOS WORKERS	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90
BRICKLAYERS	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.50	2.25
BRICKLAYERS, HODCARRIERS	1.75	1.75	1.75	1.75	1.75	1.75	1.87½	1.87½	1.75
CARPENTERS	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
CEMENT FINISHERS	2.02½	2.02½	2.02½	2.02½	2.02½	2.02½	2.02½	2.02½	2.02½
ELECTRICIANS	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
ENGINEERS: MATERIAL HOIST	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
PILE DRIVER	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
STRUCTURAL STEEL	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
GLASS WORKERS	1.87½	1.87½	1.87½	1.87½	1.87½	1.87½	1.87½	1.87½	1.87½
IRONWORKERS: ORNAMENTAL	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
REINF. RODMEN	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
STRUCTURAL	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
LABORERS: BUILDING & CONCRETE	1.40	1.40	1.40	1.40	1.40	1.30	1.40	1.40	1.30
LATHERS	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
MARBLE SETTERS	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
MOSAIC & TERRAZZO	2.00	2.00	2.00	2.00	2.00	2.00	1.75	1.75	1.75
PAINTERS	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
PILEDRIVERS	2.12½	2.12½	2.12½	2.12½	2.12½	2.12½	2.12½	2.12½	2.12½
PLASTERERS	2.25	2.50	2.25	2.50	2.25	2.25	2.05	2.05	2.05
PLASTERERS' HODCARRIERS	2.00	2.00	2.00	2.00	2.00	2.00	1.87½	1.87½	1.87½
PLUMBERS	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
ROOFERS	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
SHEET METAL WORKERS	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
SPRINKLER FITTERS	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
STEAMFITTERS	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
STONESETTERS (MASONS)	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
TILESETTERS	2.15	2.15	2.15	1.90	2.15	1.90	1.90	1.90	1.90

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STUDENT WORK

(From Page 19)

as possible building sites. Studies were next made of the location of various architectural elements. It was felt that all things drained naturally to the center, and that the community was like a living organism. Thus the flat land became the heart, and the valleys the veins and arteries. As in any healthy organism, the circulation had to be clear and logical; therefore, the valleys, with their natural flow, were utilized for pedestrian ways, while a peripheral road was established for automobile traffic.

After considerable study, 2 check dams were thrown across the wash to prevent further erosion, and to catch soil washed down from cut and fill operations.

Secondary roads were then established, and kept below the 15% agreed maximum grade. Lots were placed on slopes less than 20% and were deliberately varied in shape and size to make use of available ground. A minimum size of 80' x 120' was set.

Finally houses were located and placed to make use of the view, and to form a pleasing pattern.

All single dwelling units were arranged sympathetically with the contour and general character of the land.

Community center architecture was deliberately designed to be rigid and logical with the tree pattern providing a transition between nature and man-made elements.

Major tree pattern study resulted in a skin for the "organism" by pulling in all loose ends, and creating a natural visual terminus. Tall trees (Eucalyptus globulus) performed this function, and carried down into the heart in a rhythmic series of verticals, which snow-ball or increase as they move toward the community center. A rigid pattern in upper space clearly tells the story of the importance of the architecture below. A minor tree pattern was designed to further the separation of the lower space into neighborhoods and to define greenbelts and roads. Large clumps of trees were provided in the valleys and upon the hills to enhance the beauty of the site, and check erosion.

Conclusion

The designers feel that the finished design solves the fundamental desire of all healthy-minded people for a quiet, natural environment where children can grow with nature, and yet have all the benefits of the city.

BOOK REVIEWS
PAMPHLETS AND CATALOGUES

CHROMEDGE METAL TRIMS. B & T Metals Co., Columbus 16, Ohio. Catalogue A.I.A. File No. 23-i.

A sixty-eight page booklet profusely illustrated with drawings, photographs, charts, scales and other important information pertaining to metal trims and their many uses.

The catalogue also contains a handy visual index, a numerical index, and a section devoted to general information on the subject. The material is very well presented.

THE SPECTROGRAPHIC ANALYSIS OF TIN AND TIN LEAD SOLDERS. By D. M. Smith. Tin Research Institute, Fraser Road, Greenford, Middlesex, England.

A new booklet, gives comprehensive summary of present knowledge on the subject of Metallurgical Analysis of Tin and Tin-lead alloys by the spectrograph. Results of hitherto unpublished work by the author are included as are tables of wavelengths suitable for the use as internal standards; estimated limits of detection for impurities; an adequate bibliography and photographs of typical arc spectra. Copies available from publisher.

MECHANICAL DRAFT COOLING TOWERS. Binks Mfg. Co., Chicago, Ill.

Architects and Engineers concerned with the design of large scale air conditioning systems will find interesting information on the subject of masonry type cooling towers in a new Bulletin No. 38, recently issued by Binks Mfg. Co., 3114 Carroll Ave., Chicago, Ill.

The Bulletin gives data on tower capacities, dimensions, fan size, and other specifications.

GRAMMAR SCHOOL

A 9-classroom, office and toilet Grammar School building will be built for the Salsipuedes Union Elementary School District, Santa Cruz County, at a cost of $175,270, according to John I. Easterly, Architect, of Watsonville. T. H. Rosewall is the contractor.

THE SIX-ROOM HOUSE is leading the home construction parade, and according to a recent survey by the National Association of Home Builders, today's average home costs between $9,000 and $10,000.

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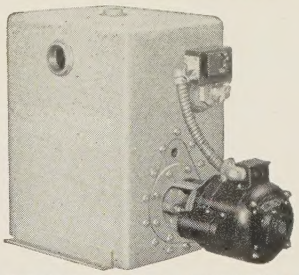

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IN THE NEWS

NEW DRY PROCESS REPRODUCTION UNIT

A new streamlined Dry Process Reproduction Unit complete with the New Harvey "Almo-Fume" Dry Developer has been announced by Peck & Harvey of Chicago, Illinois.

Designed to save time and cost in answering the many reproduction needs in drafting room, shop, lab, and office, it quickly makes a variety of Dry Prints, Positives, and negatives by exposure and dry development in a matter of seconds.

SF YACHT HARBOR REPAIR. The San Francisco Park Commission has awarded a $24,843 contract to the Duncanson-Harrellson Co., for repairs to the San Francisco Yacht Harbor.

ARCHITECT SELECTED

Confer & Willis, Architects of Oakland, have been selected to do the new Brookfield Grammar School in Oakland. Estimated cost $300,000.

NAVAL RESERVE Training Center at Sacramento (California) to cost $196,609 will be built by MacDonald, Young & Nelson, San Francisco, contractors.

ENLISTED MEN'S SERVICE CLUB

A contract has been awarded to the M & K Corporation of San Francisco, for the construction of an Enlisted Men's Service Club at the Presidio of San Francisco at an estimated cost of $280,069.

SCHOOL BONDS DEFEATED. Voters turned down a $2,500,000 bond issue for construction of new high school buildings at Lodi, California, recently.

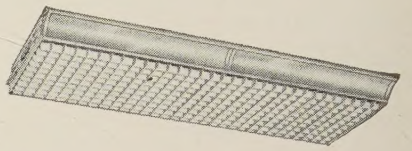
OFFICE & FACTORY

A general contract has been awarded to W. K. Owen of Emeryville for the construction of a brick and frame and stucco office, factory and warehouse building in San Leandro to be occupied by the St. Regis Paper Company.

Cost of the building is $300,000.

NEW EXECUTIVE LUMINAIRES

Engineered for correct illumination and ease of maintenance a new line of fluorescent and slimline Executive Luminaire lighting fixtures has been announced by the ELECTRIC PRODUCTS COMPANY of Chicago.



Available in 2 and 4 lamp units, louvered or glass bottoms, for standard 40 watt fluorescent and 51 watt slimline sizes. Finished in durable baked enamel, it is wired complete and has a reflection factor of 87%.

FIRE HOUSE & DRILL TOWER: Burlingame (California) will spend $65,000 in the construction of a Fire house and Drill tower, according to Sharps & Brown, Architects.

ARCHITECT SELECTED

Oscar R. Thayer, Burlingame (California), has been selected to do the new recreation buildings for the City of Burlingame. Estimated cost of the project is $155,000.

SCHOOL BONDS VOTED

A special election at Madera (California) approved $397,000 for the construction of three grammar school buildings.

HIGH SCHOOL ADDITION. $238,936 will be spent in the addition of five classrooms and cafeteria to the Wasco Union High School. Franklin, Kump & Falk, San Francisco, are the Architects.

NEVADA HOSPITAL

A contract has been negotiated by the directors of the Churchill Public Hospital at Fallon, Nevada, for the construction of a 24-bed hospital. Cost is $152,000.

DeLongchamps & O'Brien of Reno, Nevada, are the Architects; Wendell E. Nelson of Fallon is the contractor.

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IN THE NEWS

NEW SANITARY MOTOR

Designed for use in dairies, food process, canning and beverage plants this new motor incorporates several novel features which improve machinery installations where sanitation is essential.

It is totally enclosed, non-ventilated, and of various sizes, with the entire base enclosed by the motor housing finished to a flat surface. Mounting bolt holes are located in accordance with NEMA standards, and the base is designed for use of a built-in conduit box.

It is manufactured by the Louis Allis Company of Milwaukee, Wisconsin.

MARSHALL HONORED

Secretary of State George C. Marshall was awarded a certificate of honorary membership in The American Society of Mechanical Engineers. E. G. Bailey, New York, nationally known engineer and power authority and President of the ASME conferred the honor.

CONTRACT AWARDED

A contract has been awarded to Parker, Steffens & Pearce of San Francisco, for the construction of a Marine Firemen's office building in San Francisco, at a cost of $249,-455.

Architect for the project is Harold H. Weeks, San Francisco.

SWIMMING POOL

The Eureka Board of Education has awarded a contract to George J. Maurer & Son for the construction of a Gymnasium and Swimming Pool at the Eureka (California) High School. Cost of the work is $679,700. Masten & Hurd, San Francisco, are the Architects.

NEW JAIL

The first unit of a new Courthouse and Jail is to be built at Downieville (California) by Paul I. Jenks of Grass Valley at a cost of $77,114. Geo. C. Sellon, Sacramento, is the Architect.

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